October 28, 1957

Why managers need two-way training

RAILWAY AGE *weekly*

Men Who Build the Future of American Railroads

"Only mounting efficiency in every phase of operations, born of intensive cooperative research, has enabled the majority of American railroads to offset partially a number of handicaps over which they have little or no control. Among a multitude of improvements adopted by rail carriers in the past two decades, probably the most important has been the replacement of steam power with Diesel-electric locomotives—principally pioneered, perfected and built by the Electro-Motive Division of General Motors Corporation."

W. N. DERAMUS, Chairman of Board & President
The Kansas City Southern Railway Company

The new Deramus Yard and its new connection with the Dallas line typifies progress being made on the Kansas City Southern. Such a facility will permit even greater efficiency from the railroad's General Motors Diesel fleet.

ELECTRO-MOTIVE DIVISION · GENERAL MOTORS
LA GRANGE, ILLINOIS • *Home of the Diesel Locomotive*
In Canada: General Motors Diesel Ltd., London, Ontario

Here's the new, safe look at Three-Mile Creek. Armco Corrugated Metal Structures provide all the advantages of laying track on solid ground.

FIRE HAZARD ELIMINATED

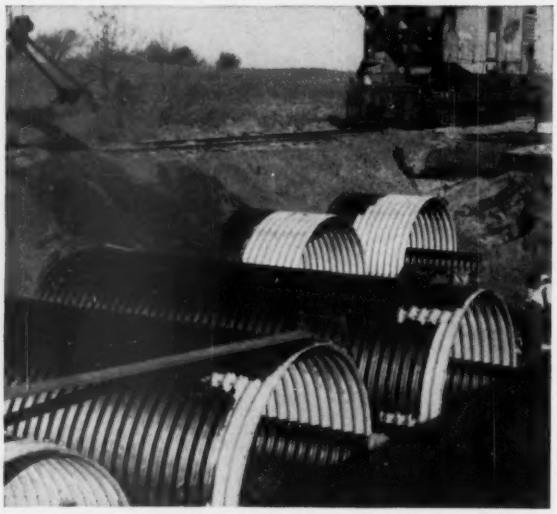
Armco MULTI-PLATE Structures Replace Burned Trestles on C & N W

When ten single-track trestles burned to the ground at Three-Mile Creek near Nelson, Illinois, Chicago and North Western officials were faced with a replacement problem. They wanted a low-cost structure that would *eliminate* fire hazards.

To solve the problem, they decided to install eight lengths of Armco MULTI-PLATE® Pipe-Arch and an earth fill. Pipe-Arch was selected because of the limited headroom conditions and needed waterway area.

Fire-resistance is only one reason why more and more railroads are solving drainage problems with Armco Corrugated Metal Structures. In addition to low cost and years of maintenance-free service, they assure efficient strength under high fills and heavy traffic.

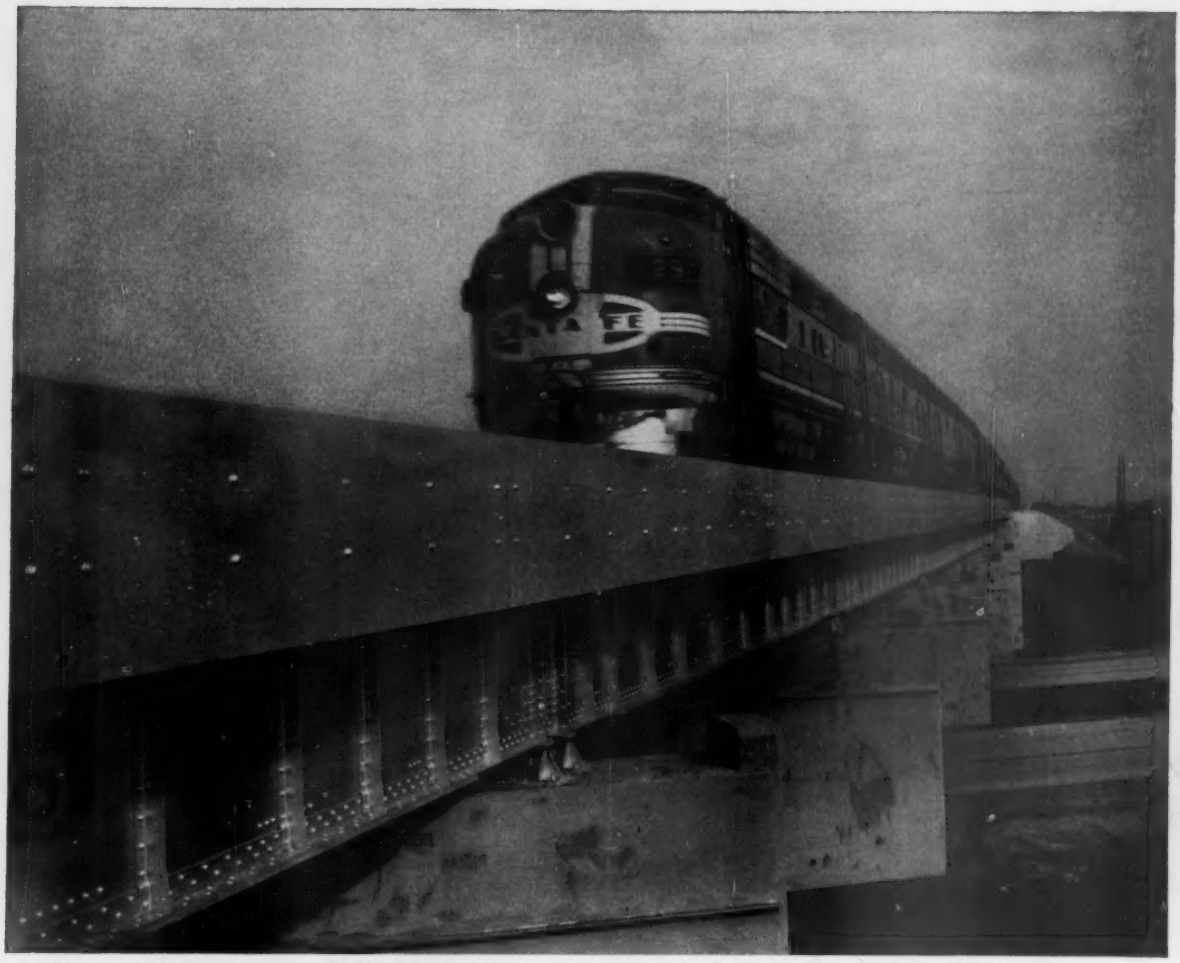
Write us for complete data. There's a size, type, gage and shape for almost any drainage need. Armco Drainage & Metal Products, Inc., 3217 Curtis Street, Middletown, Ohio. Subsidiary of Armco Steel Corporation. In Canada: write Guelph, Ontario. Export: The Armco International Corporation.



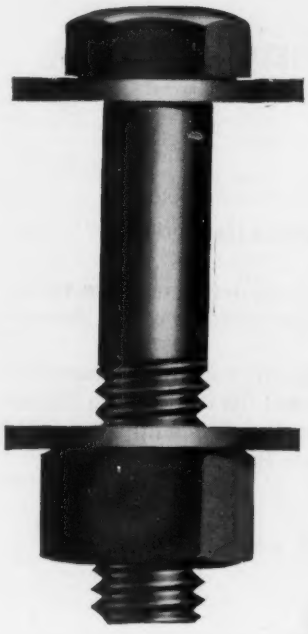
Backfill operations were started as soon as enough Armco MULTI-PLATE was installed to open the first track. Armco Structures hold traffic delays to a minimum.

ARMCO CORRUGATED METAL DRAINAGE STRUCTURES

ARMCO®



Bethlehem High-Strength Bolts keep structural members tight in this new bridge for Atchison, Topeka and Santa Fe Railway.



High-Strength Bolts Stay Tight Despite Effects of Vibration

Severe vibration, the result of traffic on right-of-way bridges, often causes fasteners to work loose, resulting in a costly, time-consuming maintenance problem. But not when the structural members are connected with Bethlehem High-Strength Bolts.

With Bethlehem High-Strength Bolts on the job, low maintenance costs are possible because the joints are permanently tight—the bolts simply don't work loose. The bolts are installed with two hardened washers, one placed under the hexagonal head, the other under the nut. Then the nut is driven up on the bolt by means of a pneumatic impact wrench, resulting in maximum clamping pressure.

Bethlehem High-Strength Bolts are made of carbon steel in lengths and diameters to meet every need for new construction or repair. They are also quenched and tempered to meet the requirements of ASTM Specification A-325.

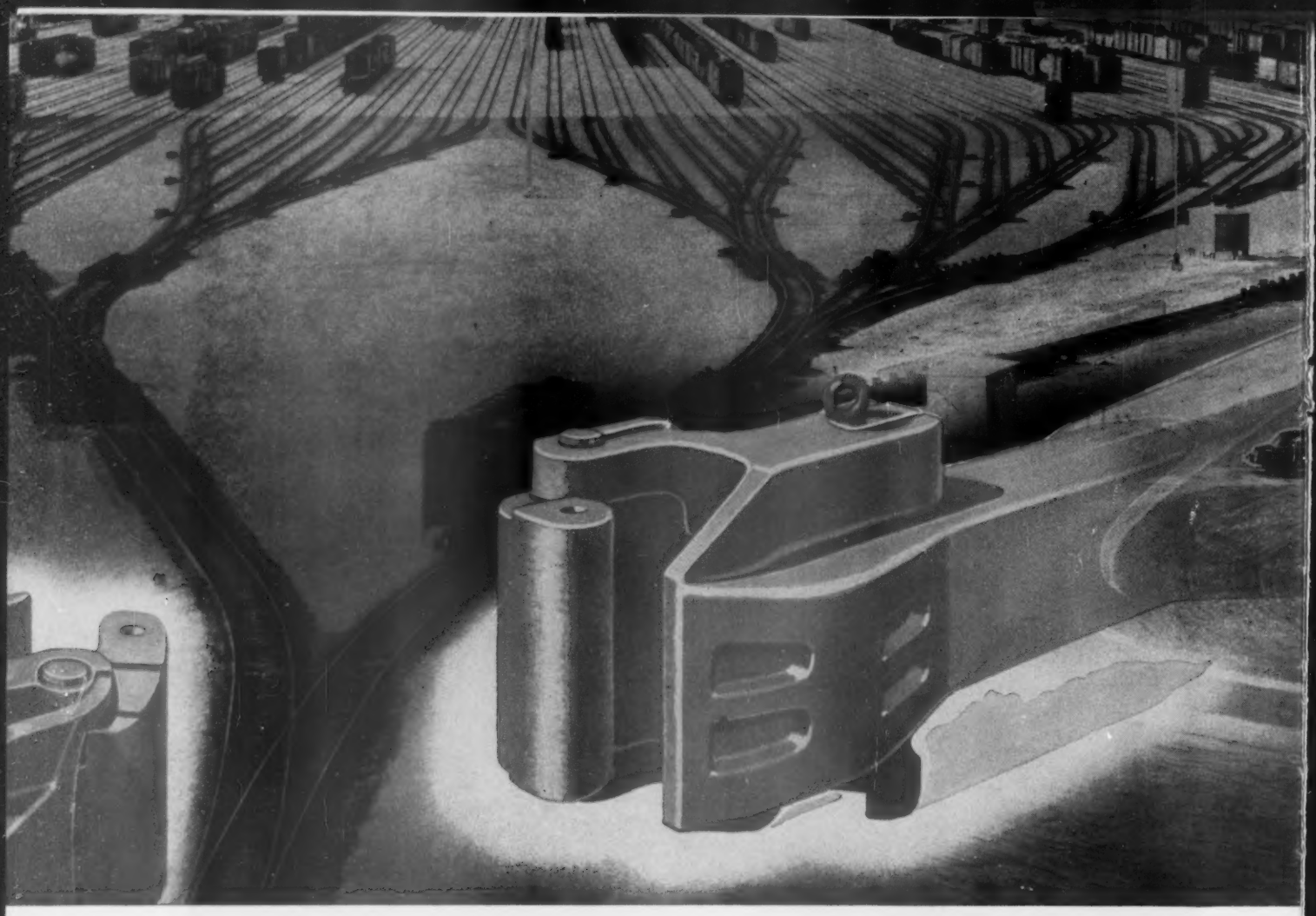
If you would like to have additional information about Bethlehem High-Strength Bolts, all you need do is get in touch with the nearest Bethlehem sales office.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

BETHLEHEM STEEL

BETHLEHEM STEEL



VELAC*

means Damage-Free Coupling in classification yards

Here's how the VELAC System makes it possible

THE elimination of impact damage was a major objective in the development of the VELAC *Fully-Automatic* Classification Yard System. Semi-Automatic yards speeded car classification but only partially solved the damage problem.

With the VELAC System, chances for errors in judging retarder leaving speeds have been practically eliminated. Automatic sensing devices measure car weight, speed, tangent track rolling resistance, curved track rolling resistance and track fullness. This information is instantly evaluated in an electronic computer in order to release each cut of cars at the proper speed to assure damage-free coupling.

From an economic standpoint, the savings made possible by faster classification and the reduction in damage costs quickly pay for the installation of a fully-automatic VELAC System and promote future profits.

*Trademark

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DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

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RAILWAY AGE *weekly* October 28, 1957 • Vol. 143, No. 18

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Railroad future is up to management p.9

Final responsibility for the welfare of the industry rests squarely on the lap of railroad management, says Chairman Ben W. Heineman of the Chicago & North Western. This is true, he believes, despite the fact that labor, federal and state regulatory commissions, and the public, are not without accountability for the railroads' situation.

Capital outlays spur safety records ..... p. 16

The important role played by capital improvements in the safety performance of railroads was stressed at the annual E. H. Harriman Memorial Awards dinner in New York. James G. Lyne, editor of Railway Age and chairman of the awards committee, told the gathering that railroads last year achieved their most effective safety results in the employee, highway grade-crossing and trespasser categories.

N&W is rolling out its own ..... p. 21

To prepare for maintaining a fleet of over 63,000 freight cars, the Norfolk & Western's new freight car shop at Roanoke, Va., is nearing completion. The shop is the result of studies made by the mechanical department when management asked that car programs be projected over a 10-year period.

Five-year crosstie programs pay ..... p. 26

Long-range planning of tie renewals will promote better utilization of men and equipment, improved inventory control, and more efficient production, the Chesapeake & Ohio's M. I. Dunn told the annual convention of the Railway Tie Association. The significance of effective replacement planning, he said, lies in the avoidance of large price fluctuations caused by wide variances in year-to-year tie requirements.

Frisco streamlines Memphis yard ..... p. 28

The road's new $10,000,000 all-electronic hump retarder yard, 17 miles south of Memphis, Tenn., was officially opened last Thursday. The facility features a 50-track classification yard with a capacity of 2,140 cars, an 8-track receiving-departure yard of 1,280-car capacity, a combination hotel and restaurant, and air-conditioned offices.

Why managers need two-way training ..... p. 32

Arguing about the relative importance of technical training and so-called managerial training is like arguing about the relative importance of the heart and the liver—life can't go on without either. The first requirement for a successful managerial development program is a corporate "climate" which encourages managers at all levels to want to consciously aid their people in development.

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GET MORE PASSENGERS ON YOUR TRACK!

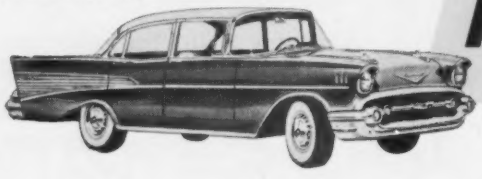
Who is that man? Most likely you saw him in one of our national magazine advertisements. He was selling The Hertz Idea—a solid idea that will help you get more passengers on your track!

You see, our advertising encourages inter-city motorists to leave their cars at home, take a fast, comfortable train, then rent a new Powerglide Chevrolet Bel Air or other fine Hertz car at their destination. That's The Hertz Idea!

More than ever, people are combining rail-auto travel. This means more new business for both of us. And importantly, more *repeat* business. What's more, Hertz "Rent it here . . . Leave it there" service now is available nation-wide at no extra cost! (Between Hertz cities on rentals of $25 or more. For Chevrolet sedans and comparable models only.)

Your ticket agents figure in this, too. For every Hertz car reservation they make, they get 10% commission on the total rental fee. Besides this, terminals all over the country have Hertz counters or direct "Call a Car" phones.

How can you help? Mention the idea of renting a car in your advertising! For more information or free promotional materials, write: Hertz Rent A Car, 218 S. Wabash Avenue, Chicago 4, Ill.



More people by far...use

HERTZ

Rent a car

Week at a Glance CONT.

Current Statistics

Operating revenues, eight months	
1957	$7,036,382,711
1956	6,950,408,794
Operating expenses, eight months	
1957	$5,507,215,070
1956	5,370,373,130
Taxes, eight months	
1957	$735,814,136
1956	731,061,595
Net railway operating income eight months	
1957	$615,229,126
1956	677,039,317
Net income estimated, eight months	
1957	$474,000,000
1956	534,000,000
Average price 20 railroad stocks	
October 22, 1957	69.20
October 23, 1956	99.37
Carloadings revenue freight	
Forty-one weeks, 1957	28,625,378
Forty-one weeks, 1956	29,818,530
Average daily freight car surplus	
Wk. ended Oct. 19, 1957	12,830
Wk. ended Oct. 20, 1956	3,577
Average daily freight car shortage	
Wk. ended Oct. 19, 1957	1,239
Wk. ended Oct. 20, 1956	15,019
Freight cars on order	
October 1, 1957	71,981
October 1, 1956	122,421
Freight cars delivered	
Nine months, 1957	76,344
Nine months, 1956	47,341

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How are they doing on the Lackawanna? ..... p. 36

Realinement of its operating divisions is the latest step taken by the DL&W to provide more efficient train operation and more personalized service to its customers. The Lackawanna, not content with "good enough," is also deeply involved in coordination projects with the Erie and with no less than 29 separate studies on a proposed three-way merger with that road and the Delaware & Hudson.

The Action Page—'Best commission yet' ..... p. 46

People who have spent a generation dealing with the Interstate Commerce Commision say "This is the best commission we've ever had." The statement is true, principally because many of the present commissioners realize that transportation has undergone a revolution, and that regulation must adapt to new conditions.

Short and Significant

New Quebec railroad? . . .

A subsidiary of U.S. Steel has iron-ore properties lying to the south and west of those served by the Quebec, North Shore & Labrador Railroad. Reports in Canada, not officially confirmed, are that a heavy-duty railroad will be built from this area southward to a port on the St. Lawrence. Rights-of-way reportedly have been obtained for a 275-mile line.

Milwaukee's President Kiley will retire . . .

next December 31. Mr. Kiley, who went to work on that railroad as a rodman during school vacations in 1913-14, has been its president since September 1, 1950. Milwaukee directors have appointed a committee to recommend a successor to Mr. Kiley.

Faster and more efficient express service . . .

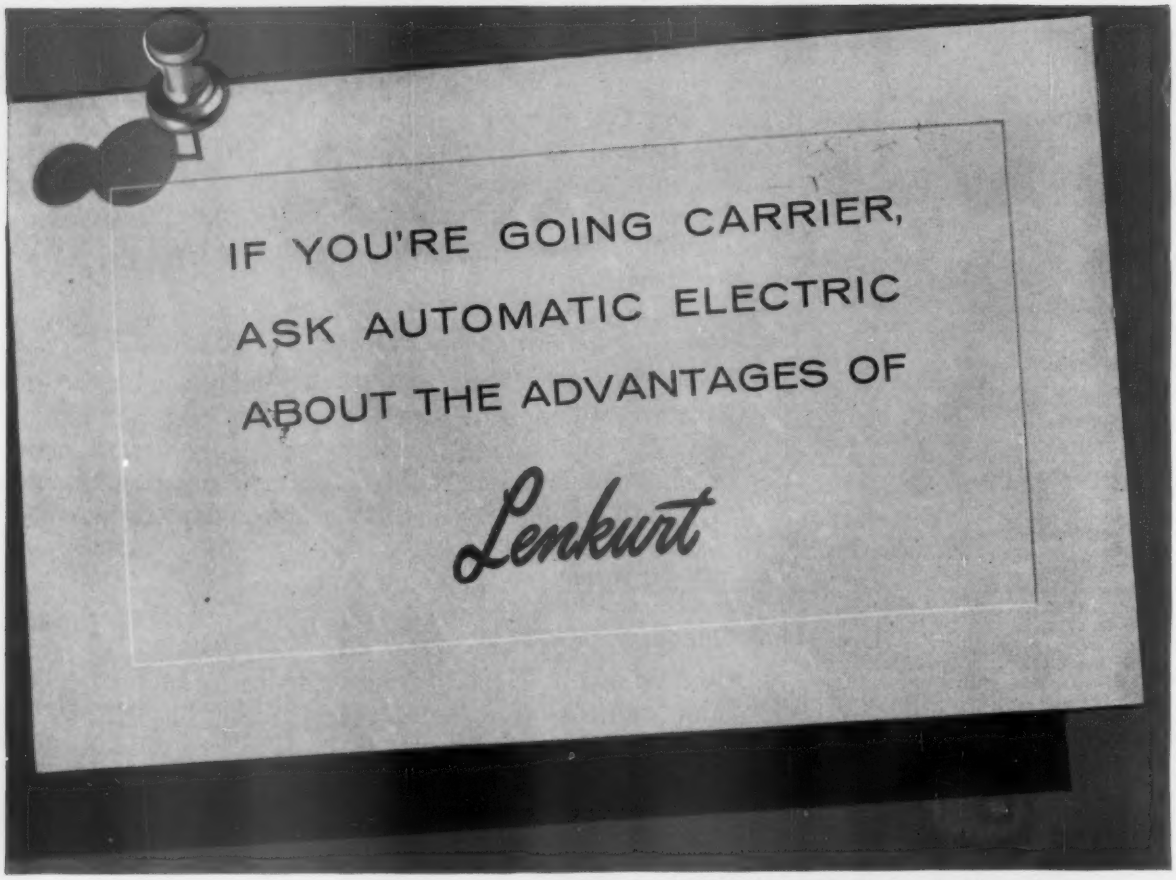
is provided by the $700,000 addition to the Railway Express Agency's Hoboken, N.J., terminal facilities which was dedicated and officially opened last week. The new facility has been designed to handle and process express traffic moving between the New Jersey-New York metropolitan area and points served by or linked with both the Lackawanna and the Erie.

Money instead of welfare . . .

will go to the firemen's union on November 1. The BLF&E transferred until November 1, 1958, its option to convert its agreed-to 7-cent-an-hour increase to a medical plan. Picking up the option then—which the union says it will do—would provide the first such plan among operating crafts.

Border fee of $27.50 per railway car . . .

is being levied by the National of Mexico. The fee, equal to 10 days per diem, is designed to offset the large sums the NdeM pays in per-diem rental on U.S. freight cars. Such rental, says Foreign Commerce Weekly, costs the NdeM about $20,000 a day.



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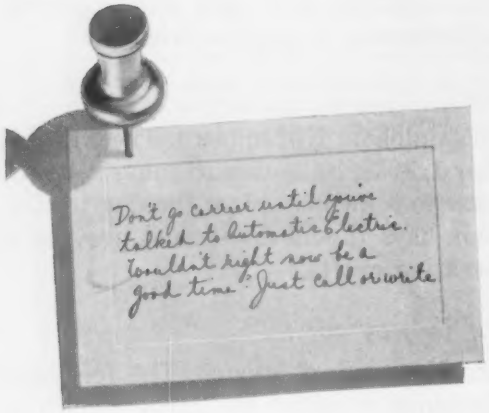

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RAILWAY AGE
The Industry's Newsweekly

RR Future Is Up to Management

'We must dynamite mountains of inertia,' says Ben Heineman, C&NW president—'Inertia by the legislatures, by labor, by the regulatory agencies, and by the public.'

Final responsibility for the railroad industry's "dilemma" rests squarely on the lap of railroad management, says Ben M. Heineman, chairman of the Chicago & North Western.

This, he adds, is true despite the fact that labor, federal and state regulatory commissions, as well as the public, are not without their share of accountability for the railroads' situation.

Mr. Heineman believes that the simple answer to what's wrong with the railroads is waste—"sheer economic waste that is without parallel in the economic history of our country."

Addressing the Illinois State Chamber of Commerce in his first major discussion of railroad matters since he became the C&NW's chief executive officer about 18 months ago, Mr. Heineman drew on his own railroad for examples of what he called "sheer economic waste."

Three engine crews on Chicago-Minneapolis trains are paid the equivalent of four days pay for a total of seven hours' work, he said. The crew between Chicago and Milwaukee earns its day's pay in 81 minutes.

Recent time studies in some of the C&NW's 800 one-man stations have shown that agents actually work only four to 10 minutes for each eight hours on duty, he said. "Translated into terms of pay for hours actually worked as distinguished from hours on duty, we find that we are paying men as much as $150 and $160 an hour."

"Now plainly, the managerial decision is extraordinarily simple: We should consolidate the stations. We should use modern technological methods—perhaps a moving office in a panel truck—and where we have several stations, have either none, or a moving station.

"Only recently a state commission denied us permission to close a station where the uncontested record disclosed that we were paying the agent a full day's pay and that he was working 59 minutes a week. In that case, a court reversed the decision."

But that is not the point, Mr. Heineman emphasized. "The point is that a regulatory agency of one of our major states would be so little concerned with the basic economics and so responsive to local political pressure as to override the most obvious managerial decision."

What is inherently the most efficient form of mass transportation presently known, the railroad industry, is fighting a losing battle, he said, "when it should be the winner in a walk."

"The ambition of every one of us within and without the railroad industry should be the manufacture of mass transportation service in increasing volume and at an ever decreasing cost. And this aim should be the aim not merely of management, but of labor as well.

"For if we have learned anything since the industrial revolution, we have learned that by producing more cheaply, more efficiently, and in increasing volume, we are able to pay higher and higher wages. And this should be the aim and ambition of the legislatures, the regulatory bodies and the public. For the cheapest possible transportation is integral to a growing and expanding economy."

"In the last analysis," Mr. Heineman declared, "we, the managers, must assume full responsibility. We alone, of all the many interests, have the responsibility for the overall efficient management of our properties. This responsibility cannot be delegated."

To avoid the stigma of failure, he said, railroad managers must:

- Convince labor that fundamental revisions of contracts are required to enable railroads to utilize their inherent effici-

U.S. Team Wins Canadian National First Aid Award

The Sir Henry Thornton Cup, emblematic of the Canadian National-Grand Trunk Senior System First Aid Championship, was awarded to a U.S. team for the first time this year. Francis A. Gaffney (third from right), GTW vice-president and general manager, is shown presenting the trophy to the winning team from the Port Huron car shops, at an award dinner in St. Clair, Mich. Left to right are Allan K. Siebert, Roland J. Arnett, Stanley K. Arnett (team captain), Rowland G. Kuhn, Mr. Gaffney, Ohmer P. Piclett and Douglas V. Appleford.

ency, increase their volume, and pay steadily higher wages on a sound economic basis;

- Persuade the commissions to permit efficient operations and eliminate unnecessary or costly service;
- Convince legislatures that "it is not in the interests of their states or their constituents for railroads to be a happy hunting ground"; and
- Convince the public that quantity service at the lowest possible rate, rather than costly and economically obsolete service, is in the public's interest as it is in the railroads'.

In the next decade railroads will again be pioneers, though over more difficult terrain, Mr. Heineman said. "This time we must remake, not the physical frontiers of our country, but the frontiers of thought. We must bridge, and in bridging change rivers of established and obsolete economic and government thinking. We must dynamite, not mountains of rock, but mountains of inertia—inertia by the legislatures, by labor, by the regulatory agencies, and by the public."

The stakes are even higher for the public in this than for the railroads, he said. "I see an industry that will be continuing to pay—not spend—tax dollars, an industry that will be making competition, not merely meeting competition. I see an industry growing in volume, increasing—not losing—its employment, and inevitably growing in the service it renders to the shipper, the public and the country."

Watching Washington *with Walter Taft*

- **A 19,600-CAR GAIN** in the serviceable fleet of Class I railroads has been achieved during the past 12 months. This is shown by latest reports to the AAR's Car Service Division. The reports also indicate that nearly one-quarter of the gain—4,334 cars—resulted from September's showing. And new-car installations accounted for that showing, the bad-order backlog having increased during the month.

- **WARNING** that car supply contemplates patronage has come to shippers from Commissioner Walrath of the ICC. He finds it "disturbing" that the railroads had about 3,500 refrigerator cars in Florida during a recent week when only 160 reefers were loaded there. Situations like that leave the Florida roads "gravely concerned over their treatment in recent years as stand-by carriers," the commissioner says.

- **FORWARDERS STILL FAVOR RAILROADS** with more than 80% of their payments for line-haul transportation service. Figures for this year's first six months indicate that the consolidators then spent, for line-haul service, a total of $131 million, of which $105 million went to railroads. Of the remaining $26 million, truckers got more than $25 million and water carriers got $874 thousand. Truckers also got another $25 million for performing pick-up and delivery and transfer services for forwarders.

- **RAILROADS ARE STILL LOSING GROUND** relatively as carriers of the country's freight. The ICC's Bureau of Transport Economics and Statistics has calculated that the rail "share" of 1956's intercity traffic, as measured by ton-miles, was down to 48.2% of the total. That compared with 49.4% in 1955. Motor carriers, including private truckers, were gainers, their 1956 share having been 18.7% compared with 1955's 17.7%. Shares of water carriers and pipe lines, respectively, were down from 16.9% to 16.2%, and up from 15.9% to 16.9%.

- **PASSENGER TRAFFIC TREND** also remains adverse to railroads. They performed only 4.1% of 1956's intercity passenger-miles, compared with 4.3% in 1955. Buses were in a like fix, their share having been off from 3.8% to 3.6%. The share of air transport, including private flying, was up slightly (from 3.4% to 3.7%); but the private automobile continues to reign supreme. It still accounts for nearly 9/10ths of the intercity travel.

- **MORE LEEWAY FOR UNREGULATED TRUCKERS** has been assured by the United States Supreme Court's affirmation of lower-court rulings which thwarted another ICC understanding to limit the scope of the Interstate Commerce Act's so-called agricultural exemptions. Effect of the high court's action in the *Frozen Foods Express* case is to add quick frozen fruits and vegetables, powdered milk, dried egg powder, dried egg yolks, and buttermilk to the list of commodities which may be carried in unregulated, for-hire trucking operations.

Failure of 'Deteriorated' Trestle Caused Accident

The Interstate Commerce Commission has found that the July 5 derailment on the Norfolk Southern near Edenton, N. C., was caused by failure of a trestle, the piling of which had "deteriorated to a dangerous degree." The deterioration resulted from "lack of maintenance," the commission also said.

The findings came out of an investigation conducted by its Section of Railroad Safety. They were in a report, No. 3763, by Commissioner Tuggle.

The trestle was the 5.05-mi. crossing on Albemarle Sound, and the accident occurred when it failed under a two-unit diesel-electric locomotive which was hauling a freight train consisting of 76 cars and a caboose. Both locomotive units and the first car fell through the trestle.

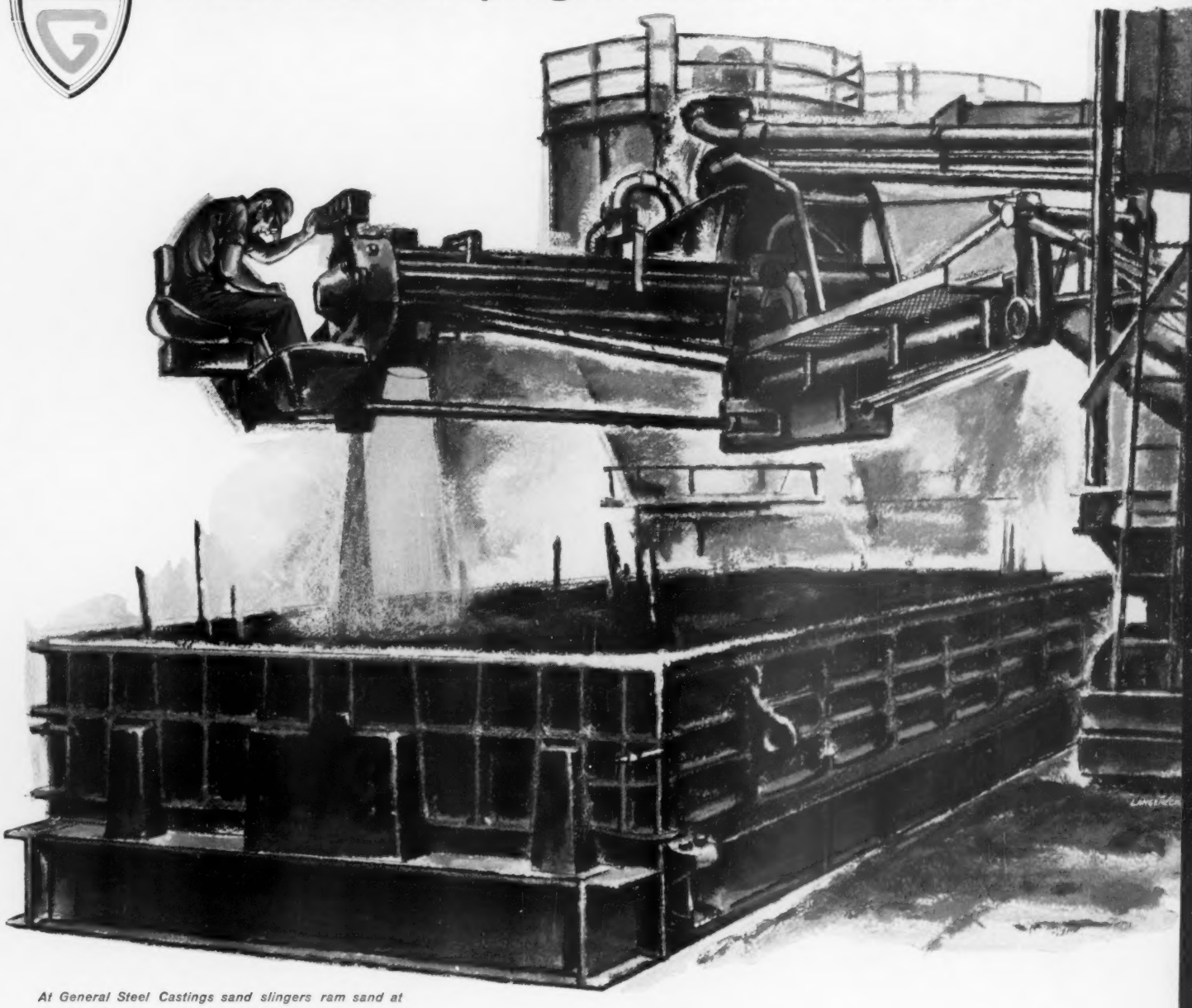
The train's conductor and engineer were killed. The fireman, a brakeman and a road foreman of engines were injured.

The open-deck trestle originally was completed in 1910. Since only about 20% of the members involved in the accident were recovered, events that led to the failure could not be definitely determined.

Examination of the remaining portions of the trestle from the deck after the accident disclosed that "a large number of ties were in various stages of decay," the report said. Examination from the water level disclosed that a number of piles of the bents containing the original full piles were in similar condition.

The commission noted that the trestle is maintained by two regularly-assigned bridge crews, and that each crew inspects a portion of the trestle each working day. Bridge patrolmen inspect the trestle from a velocipede car after each train movement. Weekly inspections by a bridge supervisor are made from the deck by riding trains and track motor cars, and by walking on the deck, while inspections from the water level are made by boat. The last inspection from the deck was made two days prior to the accident,
(Continued on page 13)

Where railroad progress is cast in steel....



At General Steel Castings sand slingers ram sand at the rate of a ton per minute. Skilled operators and massive machines make short work of ramming huge and complex molds.

Modern railroads run on ideas . . . and one of the biggest is the General Steel concept of combining many separate parts into a large one-piece casting. This forward step has resulted in great progress for railroads and other industries throughout the world.

Users of castings from General Steel are assured of decreased maintenance costs, improved operation, greater safety and maximum availability of equipment.

Bulkhead flat car equipped with one-piece cast steel underframe and interlocking cast steel ends.

- *longer life with greater availability*
- *safer shipping for heavier loads*
- *maintenance free cast steel underframe*

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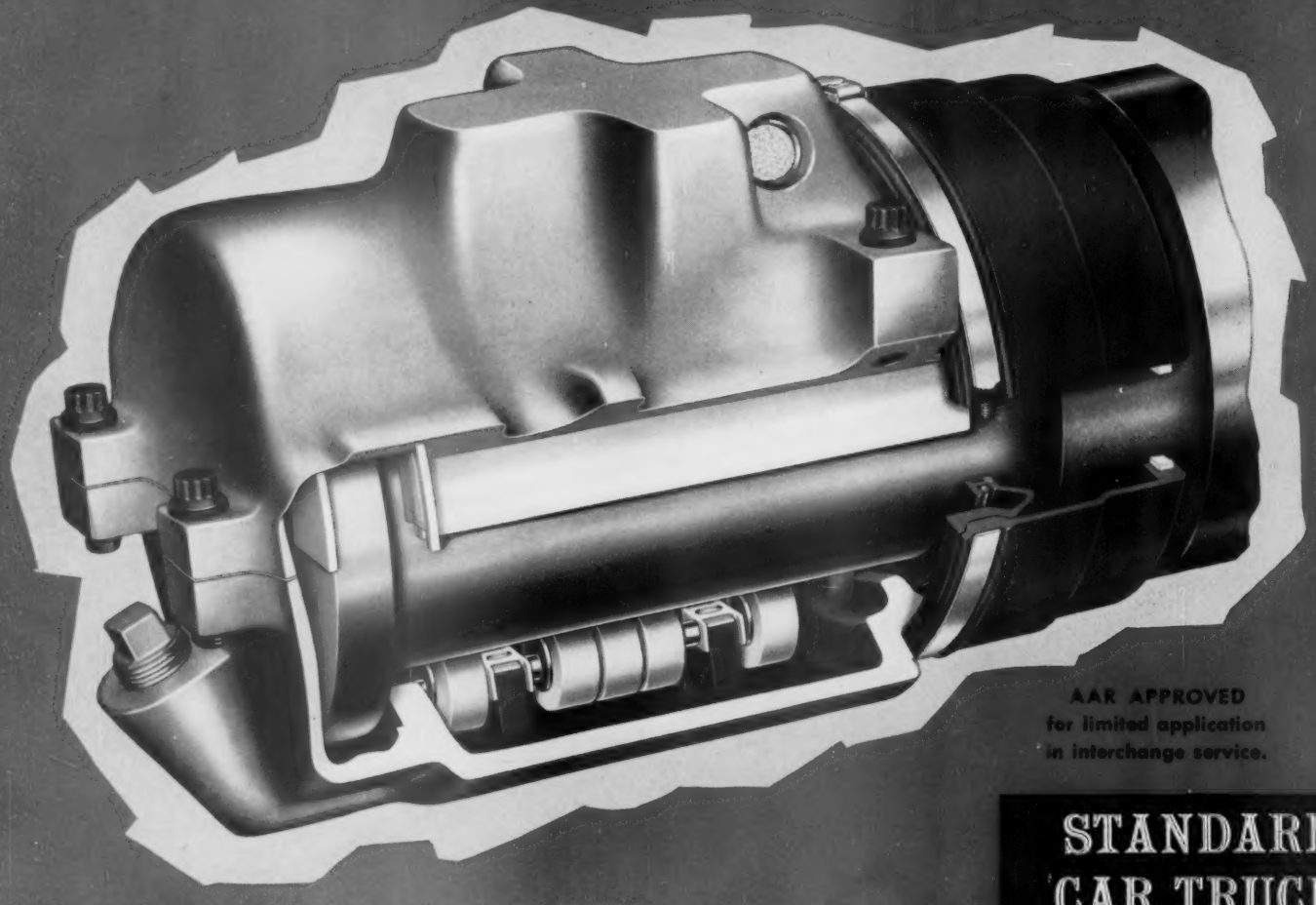
Practical railroaders joined with the world's largest, most experienced independent manufacturer of sleeve-type bearings to produce the Clevite Cartridge. The result—a change-over journal bearing, built to exceed AAR requirements for "hot box" elimination, and meet the high quality-with-economy standards of its maker—Cleveland Graphite Bronze Company Division of Clevite Corporation, Cleveland 10, Ohio.



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NEW, PERMANENT CHANGE-OVER JOURNAL BEARING, FOR AMERICA'S 2 MILLION FREIGHT CARS

Less Modification... Lower installing costs

Modification: Remove waste ribs and dust guard pocket. Machine journals and collars to standard AAR dimensions with a practical (.005-inch) tolerance.

Installation requires little time and only a few standard tools. Low cost renewal of all working parts.

Successfully tested by Clevite, duplicating extremes of service and weather to the equivalent of 12 years of hard operation. In 2 years of road service, the unit was completely free of trouble—leakage of oil nearly zero. Continuing road tests are now in progress.

Get complete data now on all the features and performance of the Clevite Sealed Sleeve Bearing Cartridge. You'll find the answer for a permanent, soundly engineered conversion to lick your "hot box" problem.

You are invited to join the railroads now service-testing the CLEVITE SEALED SLEEVE BEARING CARTRIDGE

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DISTRIBUTES IT!

The largest supplier of stabilized trucks (over 450,000 Barber car sets sold) backs every Clevite Cartridge with time-earned railroading experience and engineering skill. Ask for a representative to call and discuss your requirements. Write—

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(Continued from page 10)
but no inspection had been made by boat for more than five months.

As to work on replacement of the trestle, the commission calculated that, on the basis of the 1957 program, it would be 19 more years before all of the original full-pile and frame-type bents had been replaced. After noting that the commission has no jurisdiction over the maintenance and repair of bridges and trestles, the report made these recommendations:

1. That NS immediately arrange for a thorough inspection of the trestle by competent engineers to determine the present overall condition of the structure and its ability to withstand the traffic loads to which it may be subjected.

2. That any part of the structure which has deteriorated to such an extent that it can no longer perform its intended functions be replaced immediately.

3. That NS immediately initiate an adequate maintenance program, including frequent periodic inspections of the entire structure by competent personnel, to insure that the trestle is maintained at all times in safe and suitable condition to carry the traffic which operates over it.

Will RRs Benefit from Highway Program?

Caterpillar officer says gains in construction-related traffic and the benefits from an expanding economy will create more work for the railroad industry.

The railroad industry stands to reap double benefits from the multi-billion dollar Federal interstate highway program.

It will benefit from increased traffic during construction and from an "expanding economy which will improve business in general and create more work for the railroads."

That was the viewpoint expressed by Jerry Cook, supervisor of News-Advertising Division, Caterpillar Tractor Company, before the Mid-West Shippers Advisory Board in Peoria, Illinois.

Mr. Cook termed the $27 billion highway program "the most important transportation development of this century." It will, he said, provide 41,000 miles of highway, linking 90% of American cities of more than 50,000 population; and it's expected to carry 20% of the nation's highway traffic, although it will amount to only 1.2% of the total highway mileage.

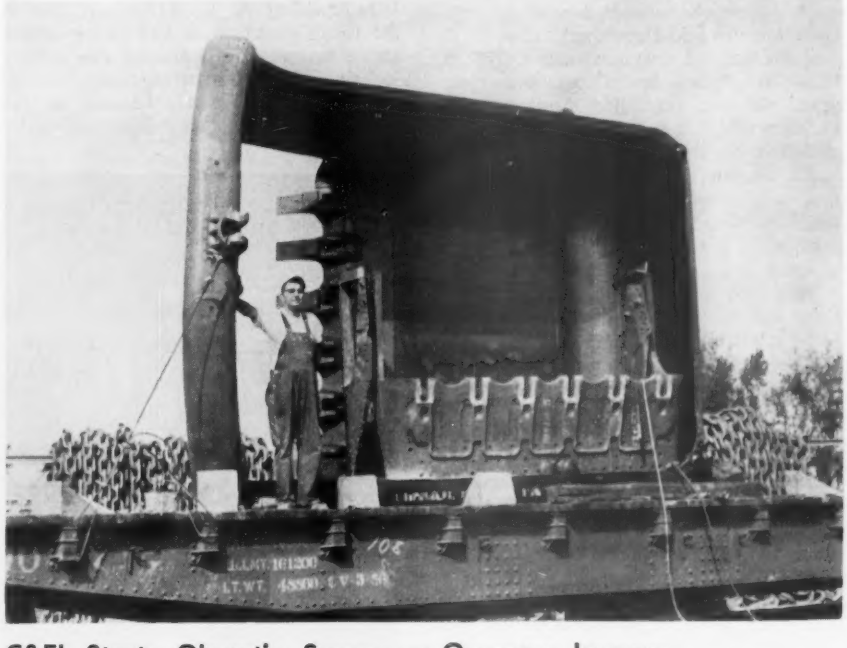
How do the rails figure in short-run benefits? Mr. Cook explained: "Vast quantities of construction materials and machines will be moved by our railroads during the next 16 years. The Bureau of Public Roads has estimated that 5,270,000 railroad cars of cement will be needed. . . . The lumber required for concrete forms and pilings will fill 311,000 rail cars. In many areas where aggregate rock is not close at hand it will be necessary to bring in train load after train load. Total requirements for aggregate will amount to 9.7 billion tons. Much of the heavy equipment used in the construction of highways can only be shipped by rail. . . . A slight increase in passenger business should also result from the construction of new highways. Motorists will often find that they prefer other means of transportation over the inconveniences caused by detours."

How long will the railroads benefit from construction traffic? "According to the best estimates," Mr. Cook told the board, "the current highway program will be completed in 1973. This does not mean, of course, that this will be the end of large scale road construction. Experts agree that the present program will provide a stimulus for more and more super highways."

What about rail traffic aside from the construction-related business? Mr. Cook offered one specific, based on the forecast that the automobile "population" of the country is due for a sharp increase, with growth in population and the completion of new super highways.

"Railroads will profit from this increase in the number of autos," Mr. Cook contended. "During the first three quarters of 1956, railroads received almost $56 million from the shipment of some 300,000 carloads of automobiles and trucks [and] before cars can be manufactured, thousands of carloads of coke, coal, iron ore, scrap iron and other materials have to be hauled from smelters, steel mills and mines to the factories where the cars are built. A great deal of this material is moved by rail. More automobiles obviously mean more business for railroads."

Mr. Cook, citing railroad fears that "new highways will destroy good industrial sites by being located too close to railroad rights-of-way," held that "one of the main purposes of the interstate highway system is to support and encourage business development. Engineers who are deciding upon highway routes are aware



C&EI Starts Gigantic Scoop on Overseas Journey

Almost 20 tons of dragline bucket recently started a journey from Danville, Ill., to Sheffield, England, via the Chicago & Eastern Illinois. It was the largest such item ever transported over the C&EI. The bucket—weighing 39,978 lb and measuring 16½ by 12 ft 9 in.—will be used for strip-mining operations. Electric Steel Foundry Company manufactured the huge scoop at Danville.

of this and are planning to allow sufficient land between paralleling highways and railroads for industrial development."

"While one may be inclined to view the highway program as involving purely and simply a public works project for the construction and improvement of thousands of miles of roadway," he added, "history will record it as one of the greatest economic influences of this century."

NYC Says: Spend to Make Money

Why, someone in the audience asked, did the New York Central use its money-producing Reading stock as a dividend this summer?

"That's an easy question to answer," NYC President Alfred E. Perlman shot back. "Would you rather have had us put out $2 million cash that could be put into maintenance equipment to earn $2 million a year or give out stock that pays 5%?"

The Central's policy now, Mr. Perlman stated in many different ways in an appearance before the New York Society of Security Analysts, is based on the credo that "you have to spend money to make money."

"To make a record on net income isn't Central overall policy at the present time," Mr. Perlman stated. He refused to make any forecast of earnings for the year, commenting that his interest is in the company's cash position. He said he has emphasized control of unit costs and tried to make sure that money isn't wasted in the road's operations.

He reviewed some of the Central's accomplishments of the past few years, mentioning new yards built, building and planned, the start of "Flexivan" (the Central's piggyback version due to go into operation in mid-December), new CTC projects, and the scheduled delivery of an IBM 705 "giant brain" computer next year. Of the scheduled projects, Mr. Perlman said that only a planned CTC installation on the Boston & Albany had had to be deferred, although he also noted that a six-road experiment with lightweight passenger equipment also had to be held back after the equipment was developed.

Why isn't there some tangible result of these undertakings in the NYC earnings, Mr. Perlman asked.

"The magnitude of what has been going on has been obscured," he declared, by two factors: "the inflationary spiral has cancelled out" part of the resultant savings; and the "tremendous" expenses of betterments has inflated the charges to transportation and maintenance of way.

"One of the most exciting things" that has developed in the face of rising costs, the NYC president went on, "is that the railroads are not talking about the old monopoly stunt of across-the-board rate increases" so much any more. They are, he said "getting away from the old monopoly theory of 'what the traffic will bear' and we are doing our pricing on costs. . . . It is a 'must' if the industry is to survive, and it is gratifying to note all the progress that is being made."

Mr. Perlman reported that the road had achieved payroll savings of about $180,000,000 a year—based on the November 1 wage scale—through the reduction of some 26,000 employees.

A new management team is being developed at the same time, he went on, noting that the road now has two general managers with ages in the mid-thirties while a 28-year-old division superintendent was recently appointed.

It used to be a man had to be "seasoned" before he could hold a top job on the Central, Mr. Perlman said, then added that there has been a 50% turnover in top management in the last three years.

"A lopsided and obsolete concept of transport policy" still handicaps the industry, he said, with "confusion and inertia" threatening to cripple the country's industrial capacity.

He suggested that government secrecy had delayed development of a nuclear-powered locomotive just as governmental inconsistencies had tied up the Cabinet Report while, on local levels, politics prevented railroads from solving commutation and other problems.

Answering a question deflected to him by his boss, NYC Freight Sales & Service Vice-President A. E. Baylis said that if the road's merchandise and miscellaneous traffic was unduly depressed this reflects in part the ability of truck competitors to skim the cream, partly because of the regulatory umbrella they enjoy and partly because they've benefited from the railroads' reliance on "ex parte" rate increases. "We're going after them with modern pricing," he said, with the comment that it's not a situation of rail vs. rail but railroad vs. "uncommon carriers." Also, Mr. Baylis pointed out, a large part of the Central's traffic has been in commodities which have been hardest hit by the year's business slump.

Photograph courtesy Lancaster Greene

MAKING A RECORD on net income isn't the New York Central's overall policy at present, says Alfred E. Perlman.

M-K-T, NYC Study Plan For LP Gas Pipeline

Two railroads—Missouri-Kansas-Texas and New York Central—are sponsoring feasibility studies for a liquified petroleum gas pipeline from Texas and Oklahoma through the Midwest and into New York.

The roads have retained the Williams Brothers Company, engineering firm of Tulsa, Okla., to make the study. Both the feasiblity of the proposal itself and the possible route the line might take are reported under survey.

The proposed line—which would amount to about a 2,000-mile project—would follow the Katy right-of-way from on or near the Gulf Coast to St. Louis, then take off along the NYC to its eastern destination.

'Single Management' Cuts Costs for MTMA

Savings of over $1,250,000 in payroll deduction alone have resulted from the first year's consolidated operation of the Military Traffic Management Agency.

Much greater savings are in prospect, Maj. Gen. E.C.R. Lasher, executive director of the agency, told a meeting of the New York Railroad Club, as the inevitable problems connected with organizing a $700,000,000 operation are smoothed out in practice.

Gen. Lasher, outlining the "single manager" theory under which his agency consolidated armed forces transportation, reported that in its first year of shakedown operation the MTMA unified in a single headquarters five offices formerly required, cut the number of field offices from 16 to 8, and lowered the manpower requirement from 1,400 to 800.

The Defense Department, with the recommendations of the Hoover Commission as a spur, developed the single manager concept to eliminate wasteful duplication of functions, Gen. Lasher said. At first the theory was applied to commodities. Instead of separate purchasing agents buying and storing the common use items —such as socks, butter and aspirin—for each of the armed services, a single source was given this responsibility. First, foodstuffs, and later, clothes and textiles, petroleum products, medical and dental supplies and photographic equipment were classified as common-use items.

Traffic management, General Lasher commented, was the first service, as dis-

tinct from commodities, to fall under the single manager concept. The goal of the agency, General Lasher emphasized, is not to do as well as formerly under the separate services, but to do better. The results of the first year of operations are a strong indication that "the single manager concept will work."

Iowa Ruling May Give Rails a 'Talking Point'

The Iowa Supreme Court has handed down a utility rate decision which could have bearing—in at least an argumentative way—on rail cases.

The court affirmed a district court ruling which said gas rates should be based on fair value, taking into account original cost of properties and present value less depreciation. A district court position that a 6% return on fair value of the property was sufficient was also upheld. The district court had said that a 3.93% return (which the gas company would have had under city-proposed rates), was confiscatory.

A spokesman for an accounting firm connected with the case was quoted as saying that the ruling represents the first time a state supreme court has recognized inflation in deciding on a depreciation allowance in setting rates.

A top railroad officer in Chicago, noting that the average railroad rate of return has been less than 4%, pointed out that the Iowa decision would have no direct effect on rail cases. But he indicated that the ruling could, by inference and argument, provide a talking point for ratemaking.

Pennsylvania Gets Armed Forces 'Reserve Award'

James M. Symes (third from left), PRR president, accepts an engraved citation honoring the railroad for its outstanding cooperation with the Army reserve program. The railroad sponsors four transportation reserve units of the 21st Army Corps, Second Army, with a combined membership of 356 men. The citation was presented for the Department of Defense by Maj. Gen. James R. Pierce (second from left), deputy commander of the Second Army. Reserve Award pennant is displayed in foreground by Col. Edwin C. Hanly (left), commanding officer of one of the four PRR-sponsored units, and Maj. John A. Tell, who is advisor to the railway reserve units at the Schuylkill Arsenal.

People in the News

CANADIAN NATIONAL.—J. A. Peebles, training supervisor, maintenance of way training programs, Western region, appointed assistant to chief engineer, personnel and training, system, Montreal, Que., succeeding **J. F. Davison,** on August 1 named assistant to chief engineer, capital budget procedures, system, Montreal. **G. S. Forbes** appointed assistant to manager of work equipment, engineering department, system, Montreal. **A. E. Monaghan,** operation trainee, named division engineer, Capreol division, Capreol, Ont., October 1, succeeding **J. D. Walker,** transferred.

R. M. Veenis, superintendent motive power and car equipment, North Bay, Ont., transferred to the Montreal district at Montreal, Que., succeeding **R. Babb,** transferred.

A. A. Chisholm, supervisor of safety and fire protection, Atlantic region, Moncton, N.B., retires October 31.

Gilbert O. Baker, terminal superintendent, St. John, N.B., retires October 31.

J. Yves Paquin appointed agricultural agent for the province of Quebec, Montreal. Mr. Paquin was formerly inspector of dairy products, Department of Agriculture, federal government.

CHICAGO UNION STATION COMPANY.—G. P. Henson, on leave of absence as superintendent, Chicago division of the Burlington, appointed general manager, CUS, succeeding **Clarence P. Fisher,** who retires November 1.

CLAREMONT & CONCORD-HOOSAC TUNNEL & WILMINGTON-MONTPELIER & BARRE-SANFORD & EASTERN.—Robert W. Chapin elected vice-president and general manager of these roads, and vice-president, **Greenville & Northern,** at Barre, Vt. Mr. Chapin was formerly president, **Upper Merion & Plymouth,** at Conshohocken, Pa.

COTTON BELT.—John W. Huvendick, chief clerk, office of auditor of disbursements, Tyler, Tex., appointed to the newly created position of assistant auditor of disbursements.

DETROIT & TOLEDO SHORE LINE.—F. R. Bette appointed general agent and **W. T. Shepherd** named service agent of a newly established sales and service office in the Carew Tower Building, Cincinnati, Ohio.

ELGIN, JOLIET & EASTERN.—Wilbur A. Ferguson appointed superintendent of transportation, Gary, Ind.

Franklin A. Fitzpatrick appointed vice-president —personnel. Mr. Fitzpatrick has been serving as consultant for the EJ&E on personnel matters during the past year.

NEW HAVEN.—Charles A. Goodwin, assistant general passenger traffic manager, Boston, appointed acting general passenger traffic manager there, succeeding **Charles E. Williams,** named executive representative — staff. Mr. Goodwin will have jurisdiction also over dining and parlor car services.

D. J. Leddy appointed manager, labor relations and **C. A. Tryanow** named personnel assistant, New Haven.

Wilfred A. Duprey, superintendent of dining service, appointed manager of dining and parlor car service—operations, Boston. **Mrs. Jane G. Beebe,** assistant manager dining and parlor car service, named manager of dining and parlor car service—sales and service, Boston.

PIEDMONT & NORTHERN.—W. C. Tankersley appointed district freight agent, Greenville, S.C.

QUANAH, ACME & PACIFIC.—Frank E. Watts appointed general agent, Charlotte, N.C. **Frank H. Myers** named general agent, 78 Marietta street, N.W., Atlanta 3, Ga.

SOUTHERN.—L. C. Adcock, assistant to freight traffic manager, Washington, D.C., appointed assistant freight traffic manager there, succeeding the late **Carl W. Dilli** (Railway Age, Sept. 30, p. 46).

L. T. Cox, auditor, promoted to assistant general auditor, with headquarters remaining at Washington.

SOUTHERN PACIFIC.—D. K. McNear appointed assistant to general manager, San Francisco, succeeding **L. E. Hoyt,** promoted.

OBITUARY

Arthur W. Emerson, 79, retired district passenger agent, **New York Central,** died October 15 in St. Luke's Hospital, Chicago.

Frank W. Harper, 77, retired supervisor of the demurrage department, **Burlington,** Chicago, died October 15 in his home at Downers Grove, Ill.

GOLD MEDAL WINNERS . . .

were represented by (left to right) David O. Mathews, president, Chicago & Eastern Illinois—Group B; W. Gordon Robertson, president, Bangor & Aroostook—Group C; and E. H. Bailey, vice-president, operations, Union Pacific—Group A.

Capital Outlays Spur Safety Records

With safety records again being chalked up in 1956, the importance of capital improvements in making them possible was stressed October 16 at the annual E. H. Harriman Memorial Awards dinner at New York.

James G. Lyne, editor of Railway Age and chairman of the awards committee, declared that "combined efforts on the part of management, employees and users of railroad service account for the current high standards of railroad safety. The carriers last year alone spent about $1,300,000,000 on additions and betterments to plant and equipment to make train travel safer, more comfortable and more economical. This brings the sum spent since 1946 to more than $12 billion."

Gold medal awards went to the Union Pacific, among the Class A roads, the Chicago and Eastern Illinois in the Class B division, and the Bangor & Aroostook in Class C.

They were accepted for the three roads by E. H. Bailey, vice-president —operations, UP; President David O. Mathews, C&EI; and President W. Gordon Robertson, BAR.

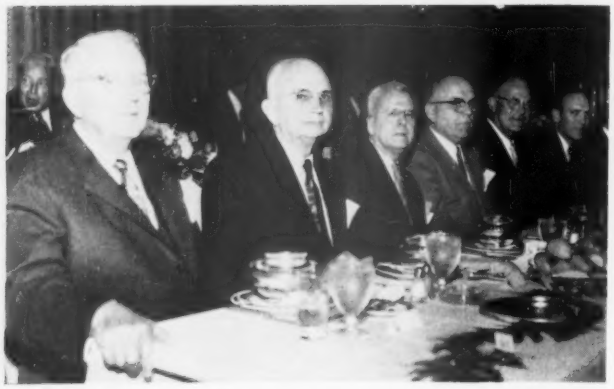
Eleven other railroads, including two switching and terminal companies, were honored for their 1956 safety records with commendation certificates. A special award went to the Pullman Company in recognition of its having transported approximately 63,000,000 travelers more than 38,000,000,000 passenger-miles for five continuous years without a single fatality.

Mr. Lyne pointed out that the total number of fatalities involved in accidents has reached an all-time low. He explained that "in the field of safety, the railroads last year achieved their most effective results in the employee, highway grade-crossing and trespasser categories."

Trespasser fatalities, he said, reached an all-time low; grade-crossing accident deaths and fatalities to employees both declined under 1955 figures.

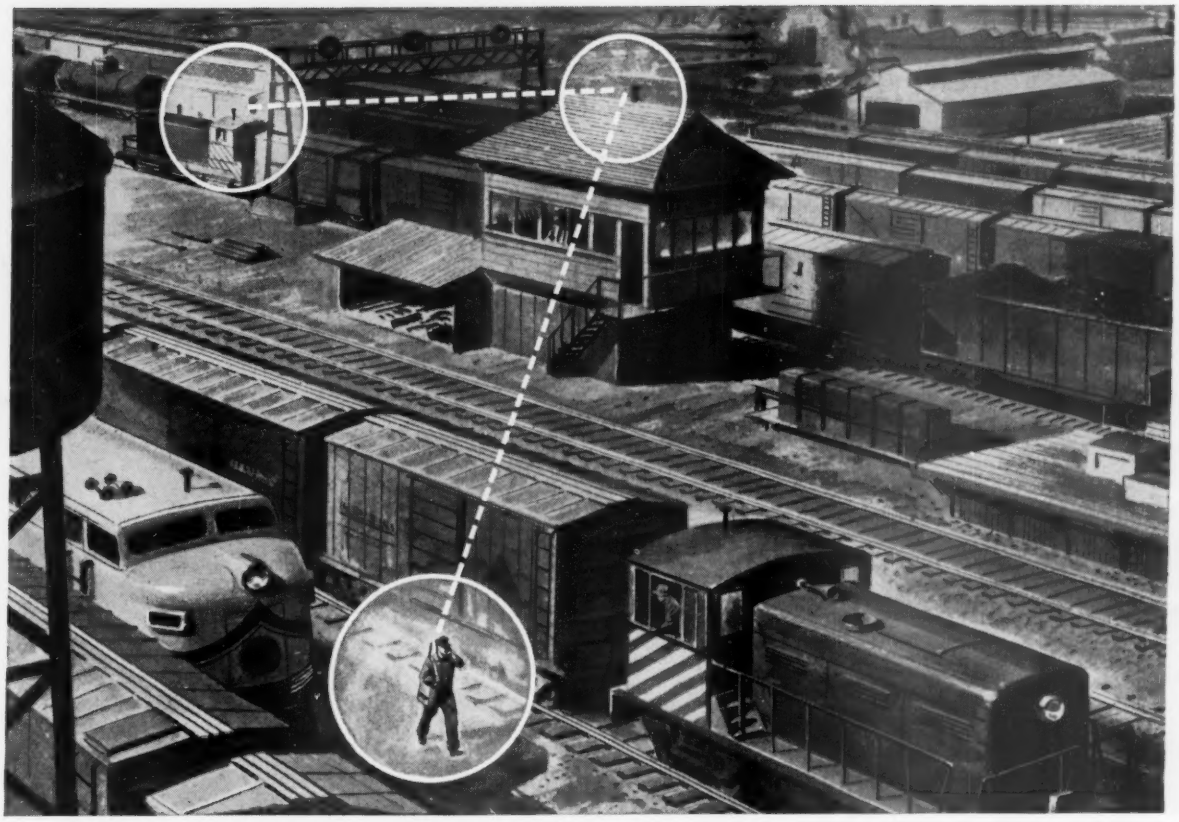
Passenger fatalities in 1956 came to .18 per 100,000,000 passenger-miles, he said —the figure including persons fatally injured from such causes as boarding, alighting, jumping or falling from moving trains.

ADDITIONAL HARRIMAN AWARDS



RECOGNITION for safety records went to C. R. Harding, Pullman Company president; James Davies, Alton & Southern president; G. M. Campbell, vice-president, B&O Chicago Terminal; J. H. Kline, Lake Superior & Ishpeming president; F. J. Voss, Duluth, Missabe & Iron Range president; and J. M. Budd, Great Northern president.

CERTIFICATES also went to J. C. Mixon, Atlanta & West Point president; John O'Farrell, assistant to general manager, Virginian; J. E. Tilford, president, Louisville & Nashville; J. M. Moudry, Litchfield & Madison vice-president; W. E. Deaton, assistant to president, Elgin, Joliet & Eastern; and G. C. White, Erie vice-president, operations.



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- Repeater lends itself to remote control by telephone line
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To receive your message spilling up and out of the "steel canyon", the Bendix Packset Repeater takes advantage of the superior antenna location afforded by a fixed installation, and then instantaneously and automatically rebroadcasts the message to all other packsets in the yard. Adding a standard Bendix remote control unit, the yardmaster may monitor all communications, use the Bendix Packset Repeater as his base station, and disable at will the rebroadcasting feature.

Receiving, transmitting, and control locations are independent of each other, giving the ultimate flexibility in planning the exact system to fit your needs. All that's needed to tie these locations together is a phone line.

It all adds up to greatly multiplied efficiency in the operation of the yard. Communication coverage is highly efficient and almost 100 percent reliable. If you want to increase communication efficiency in your railroad yard, you ought to investigate the Bendix Packset Repeater. We'll be glad to provide further information on request. No obligation, so let us hear from you.

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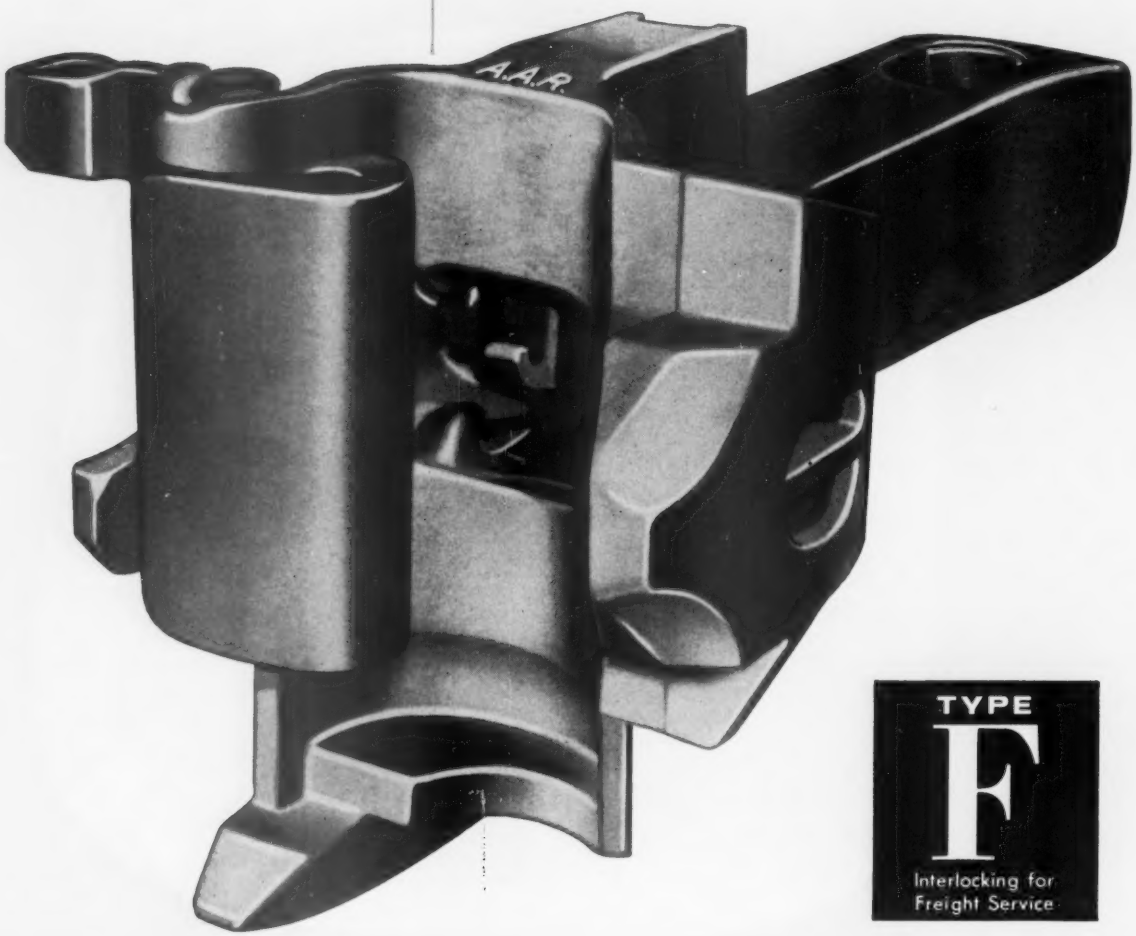
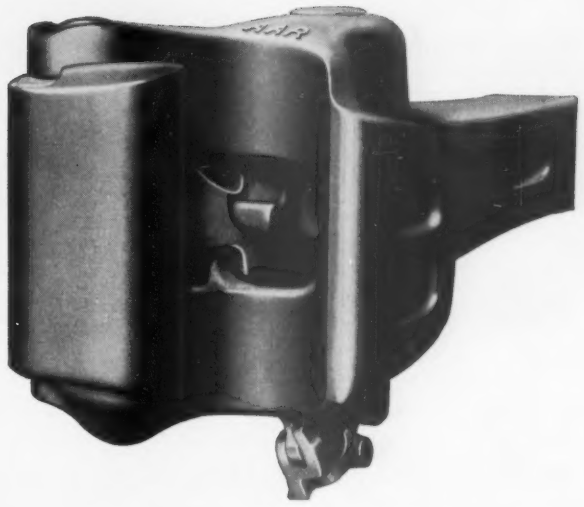


TYPE F

Interlocking for Freight Service

TYPE
E
Standard for
Freight Service



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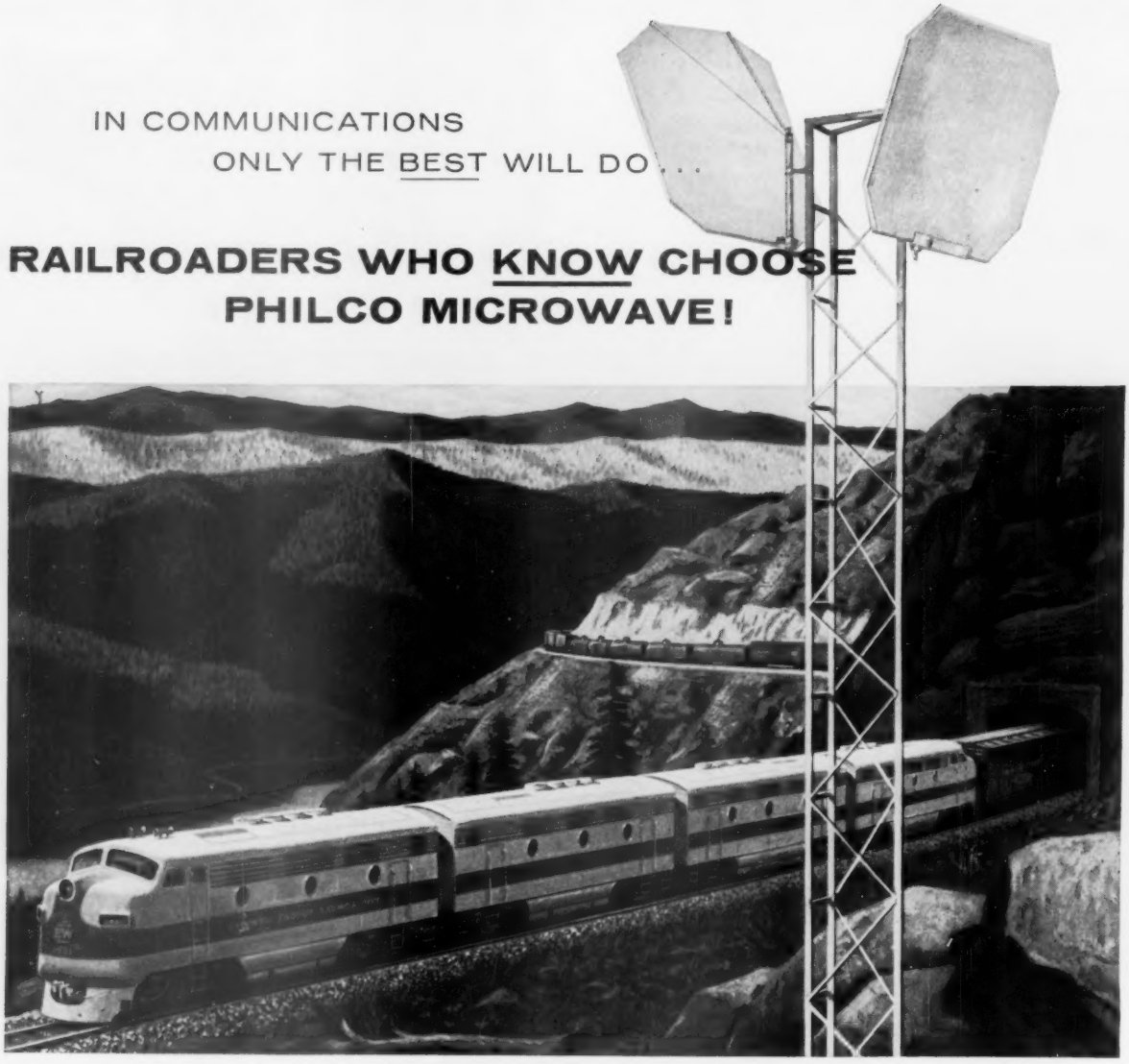
RAILROADERS WHO KNOW CHOOSE PHILCO MICROWAVE!



Philco Microwave Delivers Economical, Efficient, Reliable Communications!

Philco microwave is proving itself in many railroad jobs, providing dependable circuits for trunk telephones; trunk printers; data processing equipment; automatic car accounting systems; car registry service; car movement information; train dispatching; remote control of VHF radio to maintain contact with trains; centralized traffic control; party line conversation between way stations and operating terminals.

And Philco microwave is *reliable*, with tubeless power supplies that assure minimum maintenance and significant reductions in operating cost. Philco microwave operation is virtually unaffected by severe weather, free from the physical limitations of wire and pole systems, unhampered by the problems of difficult terrain and over-water transmission.

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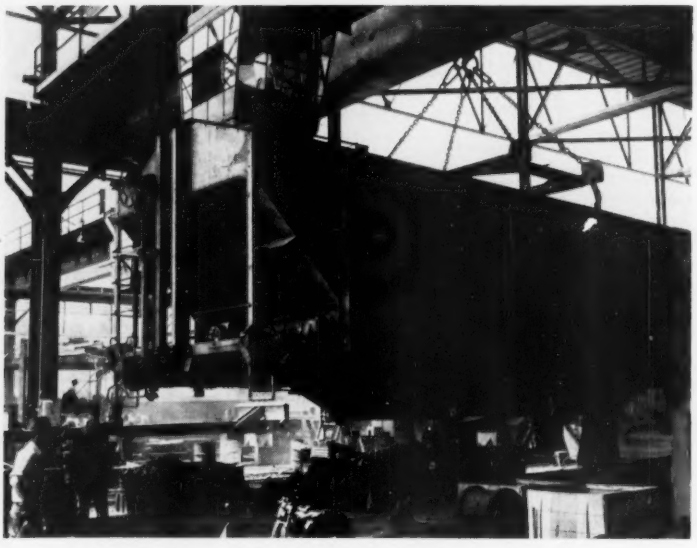
SIDE ASSEMBLY tables and heavy forming machines are in the fabrication bay of the shop which has corrugated actinic glass walls and overhead cranes throughout. Shop area is 150,000 sq ft. There is a separate locker and washroom building.

N&W Is Rolling Out Its Own



COMPLETED CAR BODY is lifted to a position where the interior and bottom of the car are coated with car cement. It is then placed on its own trucks and is ready to move through the paint building.

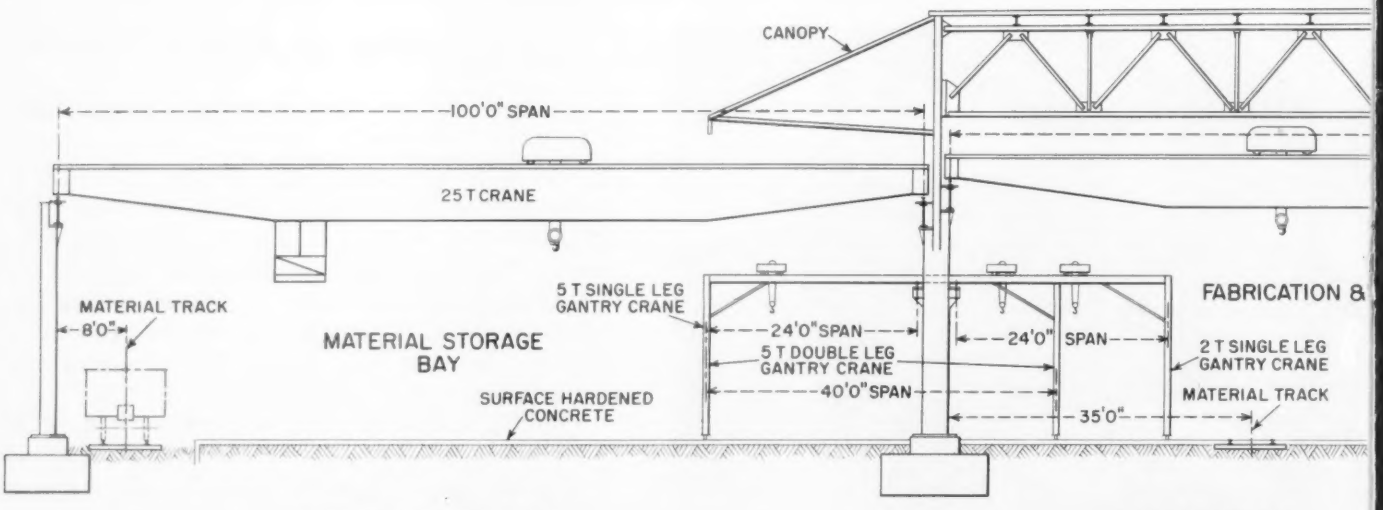
New car shop at Roanoke Is nearing completion

To get ready for maintaining a fleet of over 63,000 freight cars on the Norfolk & Western the road's new freight car shop at Roanoke, Va., is now nearing completion. The shop is the result of studies made by the mechanical department when management asked that car programs be projected over a 10-year period. Old facilities would not have handled the anticipated new car and heavy repair programs.

Planning started in 1950, was completed in 1953. Construction got under way in 1955 and the first car was turned out in November 1956. The entire project is to be finished in 1958. The new shop is on the same site as the old one, so the work has involved simultaneous demolition and construction.

Roanoke Shop Details on Next Page ▶

CARS MOVE ON PRODUCTION LINE on temporary shop trucks. The N&W mechanical department put a double slope in the floors of these new hoppers to cut down the end sheet height and keep overall length the same as earlier models. Back of the car on the other half of the production line is the structure housing the shot-blast equipment.



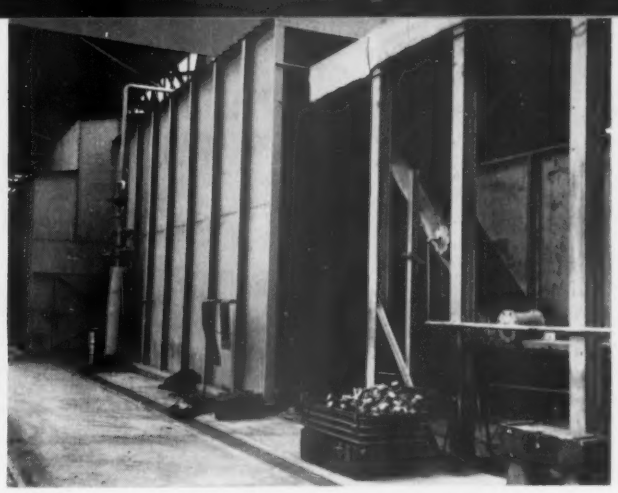
MATERIAL STORAGE

Surface-hardened concrete floor extends throughout the shop even including this 600- by 100-ft material storage bay which has two 25-ton overhead cranes. Material flows from storage through fabricating operations to the assembly lines at the right. Material is stored in the open and the canopy and the gantry cranes extend over punches which are used in fabricating long components such as center sills.

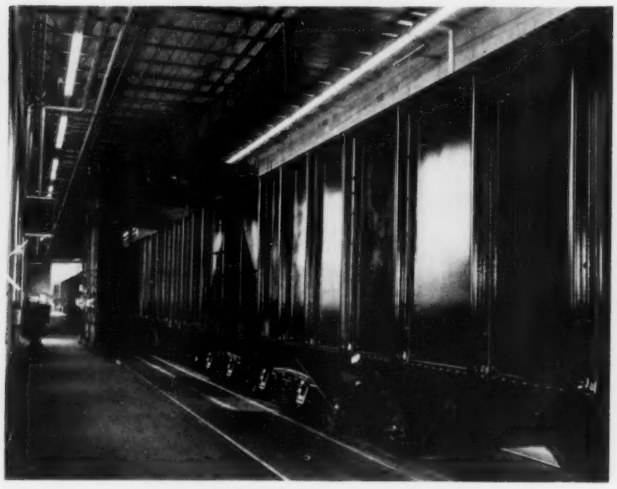
FABRICATION

This 660-ft bay has four 15-ton overhead cranes. It contains approximately twenty large machine tools and many smaller ones which fabricate almost all of the N&W's material for both new car and car

SHOT BLAST BOOTH cleans mill scale and rust from riveted and tack-welded car prior to final welding and painting. This Pangborn equipment uses small metal pellets for its abrading material.

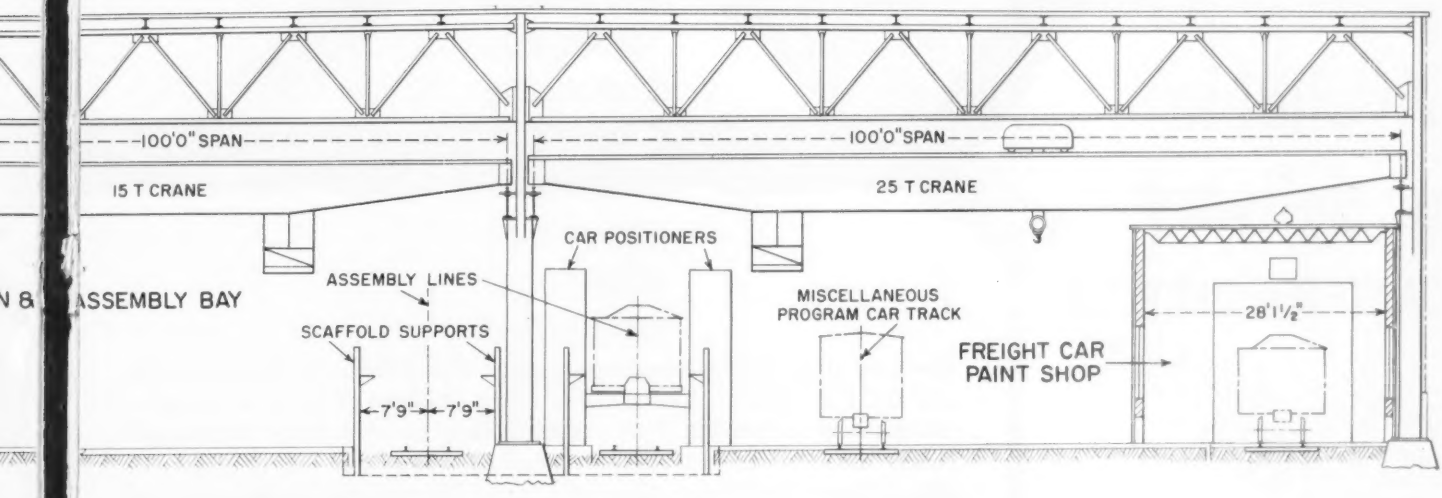


WELDING POSITIONERS are just beyond shot-blast booth. There are two adjacent pairs of these Pandjiris units which rotate the carbody one way and then the other for down-hand machine and automatic welding.



IN THE PAINT BUILDING the DeVilbiss traveling paint spray booth is fitted with duPont Steam-spray equipment which is used to apply the single coat of direct-to-metal paint N&W is using on these hoppers.

READY FOR THE ROAD after stenciling and inspection are these 70-ton hoppers which have been coming on the line at the rate of twenty per day. Weighing is done on this Fairbanks-Morse scale.



AND ASSEMBLY

repair programs. Between the machine tools and the assembly line tracks are the jigs where complete sides, complete center sills and similar subassemblies are built up. A Whiting transfer table joins tracks.

ASSEMBLY AND PAINTING

Last half of the assembly line and two other tracks for miscellaneous car repair programs are located in third 600-ft by 100-ft bay. The track at the right runs on out through a connected 450-ft single-track paint building which has the traveling paint spray booth and track scale. Main bay has two 25-ton cranes. In this section are 70-ft shot-blast booth and two sets of car positioners for handling cars.

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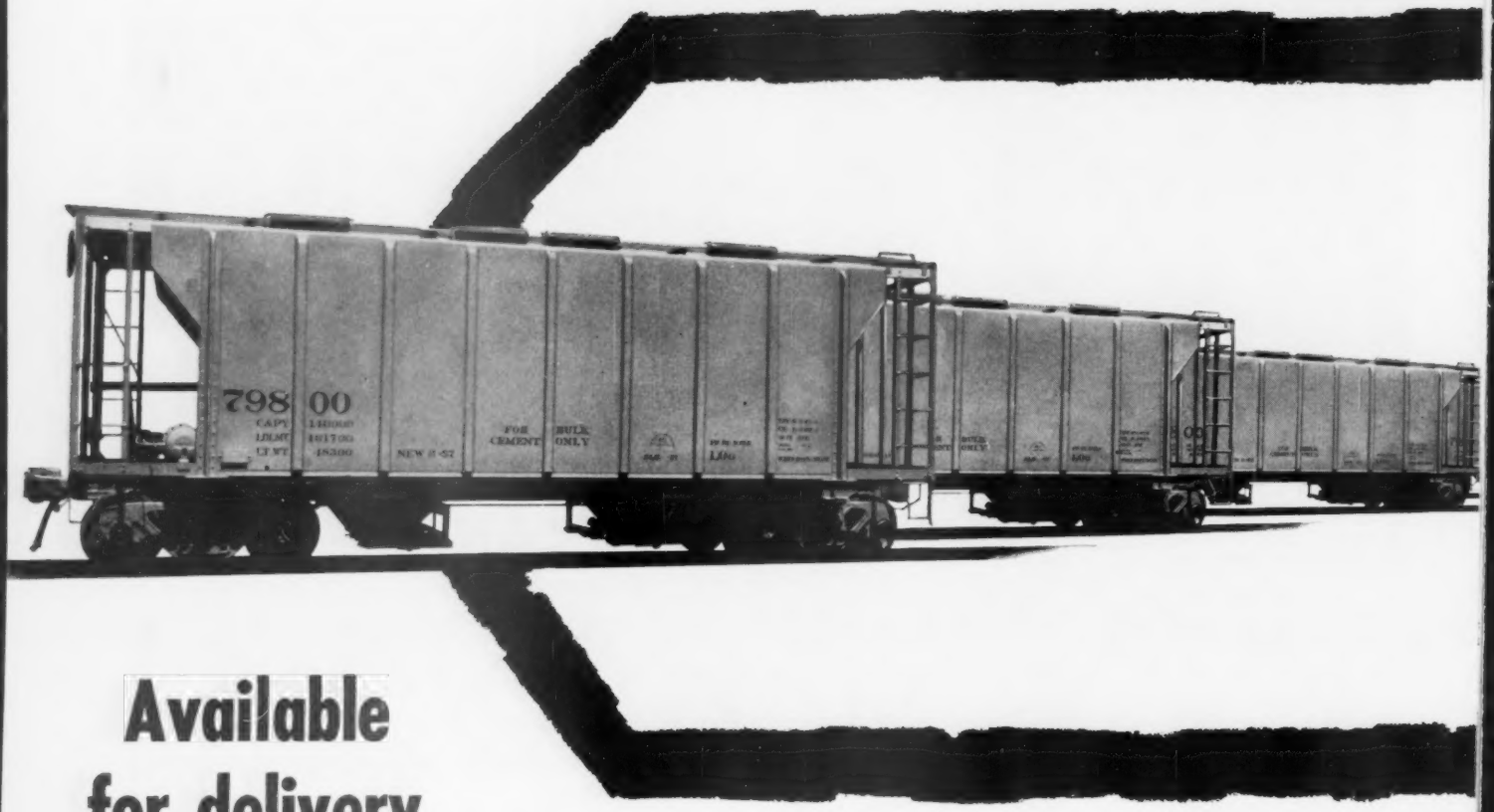

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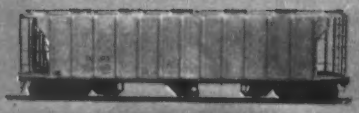
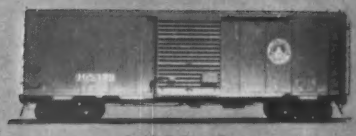


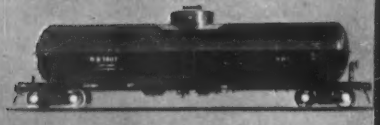
CH-41 Covered Hopper Car.

B-50-15 Box Car.

OTHER PRODUCTION DESIGN CARS



B-40-8 Box Car.



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PRODUCTION DESIGN FREIGHT CARS

Five-Year Crosstie Programs Pay

. . . Says C&O's M. I. Dunn. He is convinced long-range planning of tie renewals is practicable and will promote better utilization of men and equipment, improved inventory control, and more efficient production.

Sharp fluctuations in crosstie renewals are an unnecessary extravagance. They present the railroads with inventory and planning problems that result in higher costs, and the ensuing turmoil in the tie-producing industry results frequently in higher prices for crossties.

These points were developed by several speakers at the annual convention of the Railway Tie Association, held at the Jung Hotel, New Orleans, October 16-18. The most convincing arguments for stabilized tie renewals were voiced by a railroad man—M. I. Dunn, vice-president, operations, of the Chesapeake & Ohio.

Wants Long-Range Planning

Mr. Dunn is a champion of long-range crosstie planning. The subject, he said, should be "of concern and challenge to all railway officers carrying the responsibility of extracting the greatest value from crosstie dollars. An effective way to realize this objective is to gain the maximum economic life from our crossties through long-range planning of replacements, coupled with effective means of prolonging tie life."

The significance of effective replacement planning for crosstie renewals lies in the "avoidance of large fluctuations in the prices occasioned by wide variances in year-to-year tie requirements," declared Mr. Dunn. "It is in the economic interest of all parties to stabilize, to the greatest degree practicable, the production, treatment and installation of crossties on a year-by-year basis."

As Mr. Dunn sees them, the principal values "which evolve from stabilized production and installation of crossties" are these:

1. Levels off undesirable peaks and valleys.
2. Minimizes excessive inventory balances.
3. Allows best period for tie seasoning.
4. Wide fluctuation puts some suppliers and concentration yard operators out of business, and others suffer financial setbacks—all to the detriment of the railways, and to the future supply and cost.
5. Accelerated demand, following low-level purchasing and production, causes price increases.
6. Stabilized production and use makes for more efficient utilization of treating plant investment and labor force.

Mr. Dunn believes "that it is within the realm of attainment to set up 5-year planning for 80 per cent of our normal needs for crosstie replacement. If we can accomplish that, we will have limited the year-to-year fluctuations to a 20-per cent margin above or below the normal average annual level. Such a degree of stabilization must create beneficial results to both producer and consumer of crossties.

"Since tie deterioration goes on at a fairly regular rate, it should follow that the railroads, in their self-interest, and within the framework of their economic ability, should consciously plan to organize their crosstie replacement programs to secure the most favorable results in the areas of labor force and equipment utilization, and in purchasing practices designed to keep tie prices from reflecting the penalties of peak-and-valley buying."

Is it practicable for the railroads to plan 80 per cent of their tie renewals five years in advance? Mr. Dunn analyzed C&O tie renewals for the 24-year period, 1932 to 1955, inclusive. During this period the railroad (excluding the former Pere Marquette) used in replacement an average of 463,000 crossties per year. During 19 of these 24 years, the number of crossties inserted for replacement purposes, varied no more than 20 per cent from the average of the period. "In other words, from 1932 to 1955, in 80 per cent of the years, the number of crossties used in replacement fell within a 20 per cent range of the period average."

Narrowing the study down to the last 10 years of the 24-year period ending with 1955, average annual tie renewals on the C&O amounted to 494,000 crossties.

EDWARD F. SCHLAFLY, newly elected president of the Railway Tie Association. He is secretary-treasurer of the Potosi Tie & Lumber Co., St. Louis.

The highest installation year exceeded the average year by only 17 per cent, while the lowest year was equal to 74 per cent of the mean.

Here, in the words of Mr. Dunn, are the benefits the railroad obtains from such stability in its tie renewals: "When crosstie replacements can be held to such limits of yearly variations, it makes better budget planning possible for the railway and goes far in stabilizing production and treatment of crossties, thus utilizing to best advantage the plant investments and labor forces in those industries. These facts provide a basis for my statement that organized, long-range planning can so temper the peaks-and-valleys pattern as to stabilize at least 80 per cent of one's normal crosstie requirements."

Mr. Dunn also brought out, as did other speakers, the need for recognizing and promoting those practices which economically prolong crosstie life. "We have observed," he said, "a gradual stretch-out in the average treated tie life from the 24-25 year range of a few years ago to an expectancy in the 28-30-year range." He listed these practices and conditions as being largely responsible for this improvement:

> "It is in the economic interest of all parties to stabilize, to the greatest degree practicable, the production, treatment and installation of crossties on a year-to-year basis."

1. Better protection from rot.
2. Use of heavier rail sections in both main lines and yards.
3. Increased tie-plate areas, reducing mechanical wear on ties.
4. Use of hold-down spikes in tie plates, minimizing the necessity for re-gaging tracks, and lessening crosstie damage due to spiking.
5. Increased use of rail anchors, thus holding ties in place, reducing necessity for spacing and respiking.
6. Replacing rail on existing tie plates, reducing need for adzing and respiking.
7. Cleaner ballast, induced by cleaning and by weed control, producing better drainage, reducing retained moisture and prolonging tie life.
8. Use of tie pads and sealing compounds.
9. Use of anti-tie-splitting devices.
10. Dieselization.

"Suspense Account"

Minimizing the impact of fluctuating tie renewals was attacked from another angle by G. E. Wilson, general purchasing agent of the Reading. Mr. Wilson believes that the root of the problem lies in the ICC accounting requirement that "all expenditures for maintenance of equipment, roadway and structures, and which are chargeable to closed accounts, be included in 'operating expenses' for that year, and which correspondingly affect the net earnings of the railroad."

In his opinion, wide fluctuations in crosstie renewals could be avoided if the railroads were permitted to set up a "suspense account" of unused depreciation in years of heavy traffic "so that top railway management may have the funds available to continue planned programs of maintenance, or even to extend them, in later years of lower traffic, in which, under present conditions, they might be compelled to make drastic curtailment of maintenance."

He believes this can be done by "developing public opinion to a point where a revision of railway accounting procedures becomes possible," so that the railroads will be "given a more free hand in running their own business." His opinion is that the "suspense account" idea would "enable the railroads to contribute much towards stabilizing our national economy in poor years and would tend to decrease the over-buying in heavy-traffic years, which the present system would seem to stimulate."

What do the tie producers think of the "peak and valley" pattern of crosstie usage? Their viewpoint was expressed by the RTA's president, Frank W. Campbell, Jr., president of W. B. Crane Company.

"Long-range planning can so temper the peak-and-valley pattern as to stabilize at least 80 per cent of one's normal crosstie requirements."

"The railroads" he said, "have felt the necessity to revise their programs downward again. The bulk of their maintenance is being supplied from inventories on hand, thus substantially reducing their own stock of crossties, the trend being more and more toward letting the tie contractor hold the inventory for them.

"This is good in theory, but not so good in practice for the industry. The cost of carrying the inventory has to be carried by the tie man, who must in turn pass it on. The inability of small concerns to borrow money at comparable rates, the lack of mechanical means for storing and handling crossties . . . and the lack of adequate storage yards will, I believe, in the long run, cost the railroads more than their cost in track on the present basis. The small contractor will not be able to bear the gaff. The railroads' flexibility will be stiffened and hinder their maintenance programs, and control of their own inventories will be seriously hindered."

Producers' Viewpoint

Mr. Campbell summed up the situation, and its ultimate results, in these words: "The tie industry is in a depression, and unless the railroads move favorably in the near future, the organizations and the personnel of the tie contractors and the saw mills will be so decimated that a long and expensive period will face them in rebuilding to supply a reasonable demand, with the inevitable price increase it takes to get out of the valley to the peak." And the peak, he added, "should be a plateau."

Although the present demand for crossties is depressed, the long-range outlook has elements of strength, according to Milton M. Bryan, chief of the Branch of Woodland Management, Forest Service, U. S. Department of Agriculture. Economists of the Forest Service have come up with figures on future crosstie consumption, which indicate a demand in 1975 for 34.2 million ties, and in the year 2000 for 43.5 million ties. New wood crossties inserted by Class I railroads in 1956 totaled 23,249,499, to which he added another 5 million ties placed in new tracks and for replacement on Class II an III lines and in switching and terminal company tracks, giving a total for that year of some 28 million ties.

The theme of Mr. Bryan's remarks was that accelerated demand for wood products, such as pulpwood, in recent years has created a competitive situation in the use of our timber resources. The answer, he believes, lies in growing continuous crops of crossties, which "begins to make sense after we realize that ties must be made to fit into the present competitive picture."

"If everyone concerned—the land owner, the forester, the tie producer, and the consumer—all promote better management of our forests then more high quality trees of larger sizes can be grown as a continuous crop. If a timber or mill operator has larger, better quality timber to saw, and he knows and appreciates the place of the crossties in the nation's economy, he will be more inclined to box more ties from these trees. As competition in the smaller range of tree sizes is relieved, more high-quality trees will be available for more high-quality ties."

New RTA Officers

The following new officers were elected: President, Edward F. Schlafly, Potosi Tie & Lumber Co., St. Louis; first vice-president, W. L. Winham, T. J. Moss Tie Company, St. Louis; second vice-president, D. B. Frampton, Jr., D. B. Frampton & Co., Columbus, Ohio. New members of the Executive Committee are: R. G. Juengel, Gross & James Co., St. Louis; Henry Webster, Webster Lumber Company, Minneapolis, Minn.; M. L. Wilson, Kirby Lumber Corporation, Silsbee, Tex.; C. F. Seyer, Koppers Company, Chicago; Frank W. Campbell, Jr., W. B. Crane Company, Chicago. The Executive Committee re-elected Roy M. Edmonds, secretary-treasurer, and R. M. Hamilton, assistant secretary-treasurer.

Frisco Streamlines Memphis Yard

Last Thursday civic and railroad officers attended the official opening of the St. Louis-San Francisco's new $10 million Tennessee yard 17 miles south of Memphis, Tenn. Constructed on 300 acres of land, the new all-electronic hump retarder yard includes a 50-track classification yard with a capacity of 2,140 cars; an 8-track receiving-departure yard of 1,280-car capacity; engine servicing facilities; car repair and car cleaning facilities; icing docks; combination hotel and restaurant; and air-conditioned offices.

An integral part of the new yard is the automatic switching and automatic retarder control equipment, as well as several communications systems, including talk-back and paging speakers, radio, dial telephones and pneumatic tubes.

Yard operations here are similar to those at other retarder classification yards described heretofore in Railway Age. One novel feature, designed to assist the yardmaster in deciding upon which track to yard an inbound freight train, is a track occupancy board on the wall over his desk. Indication lamps on the board are arranged to show the occupany of either half of each of the 8 receiving-departure yard tracks and thoroughfare track No. 1. At the dividing point are double slip switches near the center of the yard, providing access to all tracks.

Looking at the board, the absence of a light indicates to the yardmaster the portion of the track that is empty. Accordingly he controls one of three track indicators at the yard entrances to display numerals 1 to 8 or T to inform approaching enginemen what track to enter.

The hump conductor, in his crest office, punches up the routes for each cut of cars on an automatic switching control machine. Retardation of each car or cut by the master and group retarders is automatic. The controls take into account weight, velocity and rollability. This is the General Railway Signal Company's system of switching and retarder control, similar to that installed in Frontier yard on the New York Central (Railway Age, March 18, p. 28) and the Great Northern's Minot yard (Nov. 5, 1956, p. 34).

Communications Everywhere

No one need be uninformed concerning operations at Tennessee yard. The yardmaster has at his command 75 talk-back speakers, as well as paging speakers both types being strategically located throughout the yard area, most of them being concentrated in the classification yard. Talk-back speakers are of two types: (1) back-to-back on pipe masts, and (2) ground line with foot treadles. The ground line speakers are near the retarders and switch machines in the class yard, being used by the maintainers for talking with the retarder operator.

The hump conductor has an "intercom" circuit to the yardmaster, and has control of talk-backs at the hump for giving the pin puller instructions. The retarder operator has a control console for communication with the yardmaster, hump conductor, trainmaster, signal maintainer and the ground line speakers near the retarders and power switches. An assistant general car foreman at the rip track has a console for control of rip track talk-backs and speakers in the receiving-departure yard and also an intercom circuit to the yardmaster.

A party-line talk-back system connects the hump conductor, retarder operator, pit car inspector and weighmaster-clerk. Intercom circuits are provided between the superintendent, trainmaster, chief clerk, chief yard clerk, yardmaster and retarded operator. This equipment was furnished by Electronic Communication Equipment Company. All wire and cable was furnished by Simplex Wire & Cable Co.

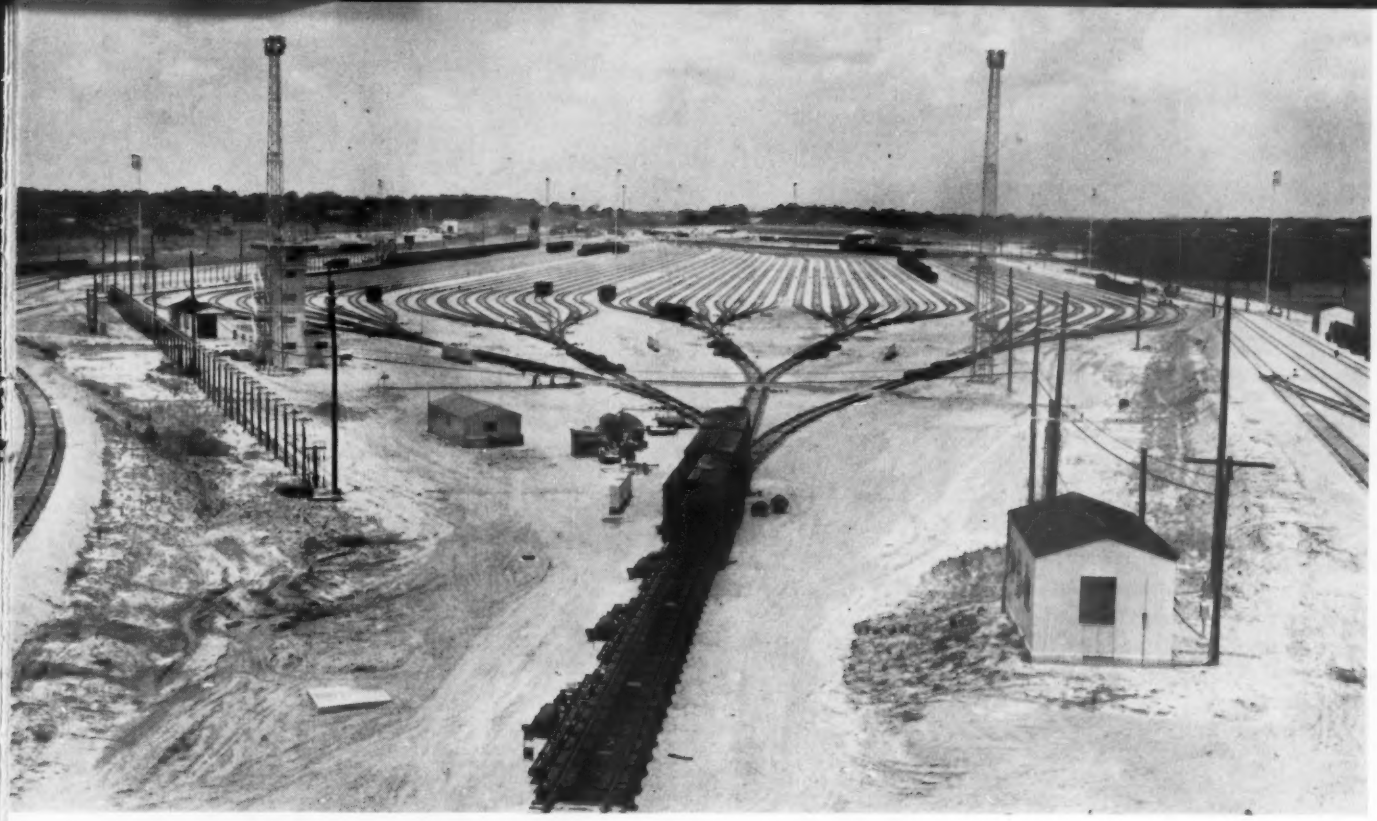
The yard base radio station is at the yard office at the crest of the hump. It can be controlled by the superintendent, trainmaster, yardmaster, hump conductor and retarder operator. The hump engines are also radio equipped, but they operate on a separate frequency. This radio can also be controlled by the aforementioned persons. The superintendent's automobile and the signal and communications maintainers' trucks also have radio. The radio equipment was furnished by Bendix Radio Division of Bendix Aviation Corporation.

A car inspection radio system works in conjunction with the ground-line speakers in the receiving-departure yard. The inspectors carry small radio transmitters for talking, their voices being picked up by a receiving station and broadcast over the ground line speakers. The receiving station audio circuit is also connected to the yardmaster's foreman of inspectors and pit car inspector's offices.

Incoming train consists from Springfield, Birmingham and Amory, Miss., are received in the telegraph office on page printers and reperforators. The tape is sent to the yard office by pneumatic tube. The tape is then run through a tape-to-card machine to produce punch cards, which are then manually punched with the class track numbers. As the train pulls into the yard, a checker reads off number, initial, and kind of car into a Dictaphone recorder. He sends the recording belt into the yard office via tube. This recording is transcribed and compared with the punch cards. The collated cards are run through an IBM printer which prints a hump switch list, which is distributed via tube to the yardmaster, hump conductor, retarder operator and weighmaster-clerk.

Construction of the yard took two years, work being done by the railroad, and some on contract, particularly the buildings. Railroad work was done under the jurisdiction of B. H. Crosland, chief engineer, with signaling and communications under the direction of R. W. Troth, general superintendent communications and signals.

◄ **RADAR UNIT "EYES"** approaching car to measure its speed, which is fed into computer for controlling the retarder.

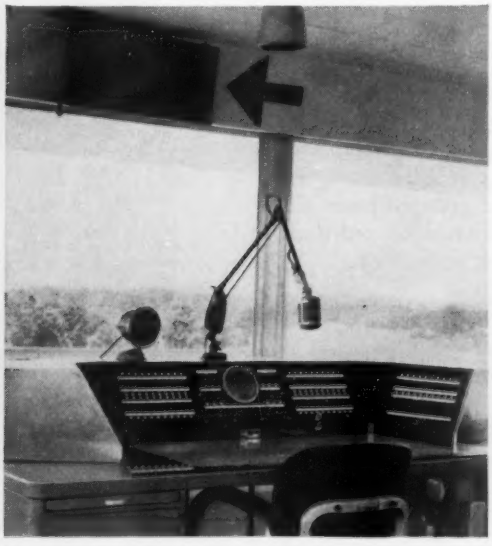


A Major Gateway to the Southeast Is Modernized

From Memphis Frisco lines run southeast to Birmingham, Ala., Mobile, and Pensacola, Fla. Northwest lines run to St. Louis, Springfield, Mo., and Kansas City. Thus it is a natural location for a classification yard. The road's old flat switching facility, Yale yard, was near downtown Memphis. It was inadequate to handle peak traffic efficiently, and could not be expanded to meet future traffic growth. Thus the Frisco decided to build the new Tennessee yard south of the city on land adjacent to the main line.

Present traffic averages 10 freight trains inbound and 10 outbound daily, with peaks during the winter when the maximum movement occurs of Florida fruit, northbound, and grain southbound to Mobile and Pensacola. There also is a considerable movement of aluminum ore from Mobile, Savannah or Pensacola to reduction plants at East St. Louis, Ill., and Bauxite, Ark. An average of about 1,500 cars are humped daily, with a peak up to 2,000 cars. Half of the cars are through cars blocked for specific points, and the other half are local cars for Memphis industries (276) and connections to other railroads.

The specific blocking at the new yard has considerably reduced switching at other Frisco yards. Cars are blocked for individual industries at Memphis, Tulsa and St. Louis.



RADIO COMMUNICATIONS enable yardmaster to keep in close touch with his yard engines (left). Separate radio channel is used on hump engines. Receiving-departure yard track occupancy board over yardmaster's desk (center) shows him empty tracks for inbound trains. Hump conductor (right) punches up class track numbers to automatically route cuts of cars.

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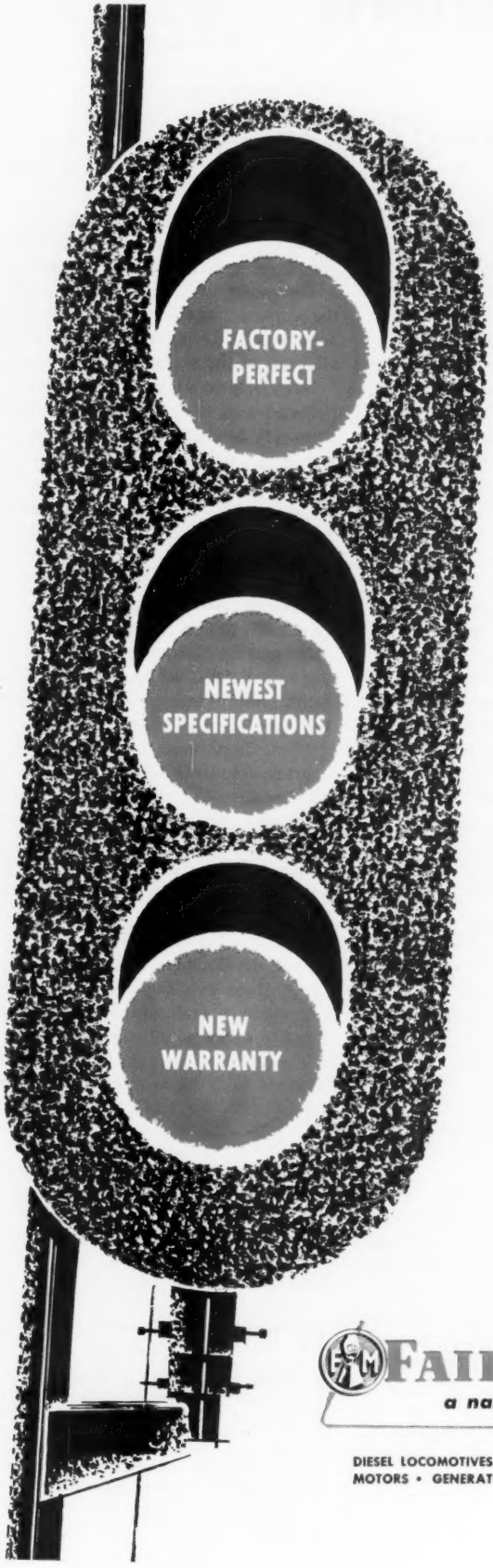

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Current OPERATING DEPARTMENT Questions

What kind of supervisory 'job' training?

This question was suggested to me by remarks of a railroad executive quoted in the "Railroading After Hours" column of August 26. This executive said that while he favored management development courses, "I am also in favor of a system of education that will teach a superintendent all he needs to know (and it is a lot) about how to be the best possible superintendent. And the same goes for all other management and supervisory positions." Special railroad duties were what this executive had in mind.

I wrote a few people asking what their roads are doing or have done in the way of providing such training. Two replies appeared in this space on October 14. Here's another—from a personnel man who asks to remain anonymous.—*G.C.R.*

"The chief executive you quote as saying he is 'more and more convinced that education in specific railroad duties is just as important a part of management development as training in managerial techniques' is, I suspect, simply reflecting the confusion and misunderstanding which have been generated by the latest personnel fad—management development.

"Of course technical training is important. No one ever said it wasn't. So is the so-called 'managerial' training. It's like arguing about the relative importance of the heart and the liver—life cannot go on without either.

"The development of people—managerial or otherwise—is and has been an integral and inescapable part of management's responsibility, since the very first business organization was established. As with every other facet of business, this responsibility has been accomplished with varying degrees of effectiveness ranging from total failures to highly successful results. The point is—our well intentioned efforts to improve and formalize this ancient and honorable responsibility have caused many management people to take for granted that they were being offered a brand new—and modern—gismo.

"Undoubtedly there are chief executives today who are insisting upon formal programs of management development simply as a means of keeping up with the industrial Joneses. Institutions of higher learning and professional groups—ever alert to such phenomena—have been quick to capitalize on this turn of events and have obliged by setting up special courses and seminars designed to develop and 'improve' managerial skills and competence in one week, two weeks, three weeks, or whatever the traffic will bear.

"Happily, there is evidence that top managements in many companies are beginning to wonder about this new cult, and are subjecting their own management development programs to serious and thoughtful scrutiny. Obviously the chief executive referred to in Mr. Lyne's article is doing just that, and his personal interest and concern—and confusion—will undoubtedly result in better understanding of the problem on his property. And better understanding will, in turn help to provide the climate conducive to honest-to-goodness constructive development of people at all levels in the organization.

"You ask 'to what extent have we participated in managerial development courses?' I assume this question refers specifically to courses held by institutions of higher learning and associations such as American Management Association. The answer is—we have participated to a considerable extent. During the past five years every department on the railroad has participated in such courses. But let me hasten to add that we do not consider such participation to be anything but a very small facet of management development. Important, yes—but definitely a very small part of the whole.

"But, important as they are, college courses frequently fail in their purpose because they are misused. And, generally speaking, when they are misused, it is because management puts too much emphasis on these courses for development purposes rather than where real emphasis belongs—right within the company—and on the job. Used as a supplement to *conscious* development efforts on the property, these outside courses can—and do—provide a real and much needed adjunct to our total efforts."

What corporate 'climate' for a program?

"You ask 'what sort of a program do you have at present or contemplate for the future?' In the strict sense of the word, we do not have, nor will we have, a 'program.' The word 'program' seems to imply a regimented procedure with steps 1, 2, 3 and 4 through which people must pass to receive a certificate as a manager. Perhaps a statement of what we believe would help in understanding our approach.

"We believe every individual should have the opportunity to develop himself to his highest potential. To accomplish this, every supervisor and every manager must be made aware of his responsibility for providing such opportunities, and must be provided with the necessary tools to accomplish his responsibility.

"Thus it will become evident that the first requirement of a successful 'program' is corporate climate—a climate extending from the chief executive throughout the organization which encourages managers at all levels to want to consciously aid their people in development. One of the most effective ways of achieving this is to make it a reality in the company that the promotion of every manager depends in large measure upon his success in developing his subordinate. This is powerful motivation!

"But the 'will to do' is not enough—tools must be provided. In most companies today I suppose the 'tools of the trade' are what are mistakenly referred to as the 'program.' This is natural because the tools are tangible and much, much more visible than such nebulous components as policy and climate.

CONDUCTED by G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

"These tools are many and varied in nature. They include good selection procedures to assure that we are employing a reasonable number of people with management potential. They include appraisal techniques to aid in determining which development opportunities are needed by each individual.

"They also include the kinds of management policies and organization that will make it possible for a manager to *act* like a manager—that will provide both the opportunity and information to make decisions.

"They include an equitable salary structure to quicken, rather than stifle, incentive. And, of course, they include the vast array of specialized tools such as courses, seminars, scholarships, job rotation, guided reading, on-the-job counseling and coaching, 'permissive' type staff meetings, and a host of other 'gimmicks'—each of which can be effective in particular situations.

How best use development 'tools'?

"The main difficulty in using these tools is that people forget that development is accomplished on an individual basis, and are prone to believe, for instance, that a particular college course or any other individual tool will benefit every member of the management group. Sometimes this may actually be the case.

"A doctor would be stupid to make an across-the-board prescription, without examining his patients. Yet this is precisely what we do when—without any attempt to appraise individuals—we blindly send officers to X university, or subject them all to a course in public speaking, etc.

"Our 'program' is coming along very nicely.

"Of course, it's not very spectacular—and neither does it 'look like' a program. But our management people are very much concerned with the problem; it is a frequent subject of discussion at staff meetings; and a great deal of experimentation is going on. Thus you can see that the proper climate is developing. Believe me, this is real and significant progress.

"We are becoming more and more acclimated to such fancy doings as structured appraisals, psychological testing, position evaluation—as well as the ivy-covered halls of higher education. We would be kidding ourselves to believe this adds up to significant end results. But these are all important steps in reaching our ultimate objective of helping every individual to develop his full potential.

"The facts that chief executives are asking questions and that a responsible voice of the industry such as Railway Age is inquiring into the problem are indications that we may be getting somewhere. Not that we shall see perfect 'programs' in the near future—far from it. But at least the first step, the development of a receptive climate—may be in sight."

Railroading After Hours with Jim Lyne

RAILROAD FAMILIES—W. E. Baer of La Cygne, Kan., says that at one time he and his three brothers worked in four different departments on four different railroads. He also suggests that the Deramus family—with father and son simultaneously chief executives of two different railroads—offers something unusual in the way of intensive interest in the railroad industry. It does—and Ralph Budd and his son John were in the same situation when one headed the Burlington and the other the C&EI.

The railroad industry affords many examples of continuing family interest in it—despite the report, often repeated, that railroad parents usually advise their sons to get into some other business. I doubt whether fathers have given such advice to their sons any more often about railroading than about other industries.

It depends more on the boy, I suspect, than on the dad. If the youngster is bent on getting rich in a hurry, of course, his father wouldn't advise him to go railroading. But there are still mighty few industries which offer a challenge to as many diverse talents as railroading does.

UNWILLING UNIONISTS—I have just been reading the October 19 issue of National Review magazine, which has an article by one of its editors, succinctly summarizing the history of the Santa Fe's court battle against the so-called "union shop," and the road's insistence upon a stipulation that enforced contributions from employees be not employed for political purposes.

I have believed all along, and still do, that the Santa Fe's stand on this question is pro-labor—the best proof of which is the fact that its position is exactly that maintained for many years by the unions themselves. When the unions did a sudden switch a few years ago, they apparently took their cue from a lot of johnny-come-lately unions which never could have got big membership without compulsion. The railway organizations never had this trouble.

My father was an ardent O.R.C. member throughout a lifetime of railroading. He looked upon the organization in much the same way that doctors or lawyers do their professional societies. I wonder whether unions can inculcate such a feeling of loyalty in involuntary members.

SIDE-BAY CABOOSES—I am curious about these side-bay cabooses. That is, why they seem to be accepted and even highly popular on some railroads, while others shy away from them like the plague. I have heard the arguments pro and con, as doubtless most buyers of cabooses have—but management, apparently, usually gives considerable weight to the preferences of the train crews. Why is it that crews on some roads like the side-bay jobs, while others do not?

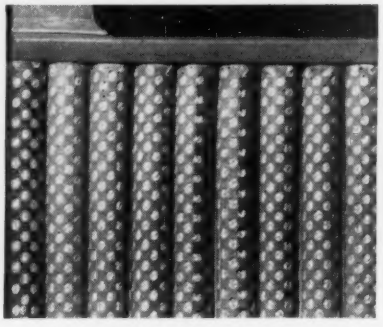
WHY MAINE IS "DOWN"—George B. Dutton, Jr., of the DT&I tells me the reason why Maine is "down" rather than up: It dates back to the days of sailing ships, when the prevailing winds took the vessels "down wind" from Boston to the Maine Coast. L. W. Moody of Union, Me.; Emeritus Professor J. G. Babcock of M.I.T.; James Wilson and A. T. Knowles of New York, also corrected my ignorance on this point.

EXIDE DEVELOPS NEW, IMPROVED, MORE

Photo courtesy Reading Railroad

New MGD Exide-Ironclad Battery for diesel locomotives. Designed to conform with recommended practices of Association of American Railroads.

ADVANCED TUBULAR CONSTRUCTION— DEVELOPED OUT OF RESEARCH STARTED 15 YEARS AGO



Armored porous tubing. Provides resistance to shedding and effects of vibration, improved flexibility, and maximum retention of active material. Thousands of tiny openings mean . . .

ECONOMICAL DIESEL LOCOMOTIVE BATTERY

New MGD Exide-Ironclad Battery design unlocks more power from battery space—gives you increased savings on investment and operations

Now Exide-Ironclad diesel locomotive batteries are thriftier than they ever were. Always famous for long life and high performance, now they offer improvements that mean even higher capacity per dollar.

Exide has achieved these new benefits for diesel locomotive users by taking full advantage of the extremely high permeability of the armored porous tubing and its improved active material retention characteristics. This highly permeable tubing, made of braided glass fibers within a perforated polyvinyl chloride armor, acts like a highly efficient filter, preventing practically any loss or shedding of active material. Yet the high porosity enhances contact between electrolyte and active material—significantly improving battery performance.

How you benefit

The new MGD battery packs more power per plate than other diesel locomotive batteries. It gives you a 50% increase in amperes discharged at diesel engine cranking rates even over previous model Exide-Ironclad Batteries.

The MGD is available in two sizes: 280 and 420 ampere-hours at the 8-hour discharge rate. In both, concentration of battery power reduces the space required. The MGD-19 (420 ah capacity) battery normally used in large road locomotives is now available within the dimensions of batteries furnished in smaller switching locomotives without sacrifice in cranking, standby performance and life. This means new versatility and the possibility of reducing the number of sizes of batteries needed.

Same Exide-Ironclad quality features

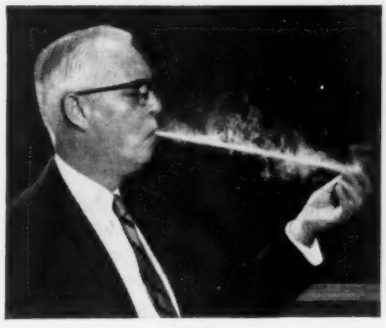
With all these improvements and new battery economies, you still get the quality features that contribute so much to the proven performance of Exide-Ironclad Batteries: heavy copper inserts in terminal posts and cell connectors to insure high sustained voltage during cranking; large electrolyte reservoir above plates to reduce watering requirements; ample sediment space in bottom of jar for long life; rugged molded rubber container built to withstand locomotive operation and provide for reduced maintenance.

Discover how much you can save

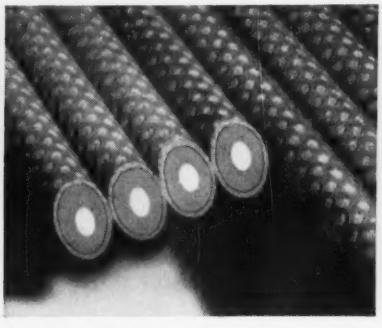
Learn how much you can benefit from the advantages this battery offers. Call your nearby Exide representative. Or write for complete information. Dept. MG, Exide Industrial Division, The Electric Storage Battery Company, Philadelphia 2, Pa.

Exide®

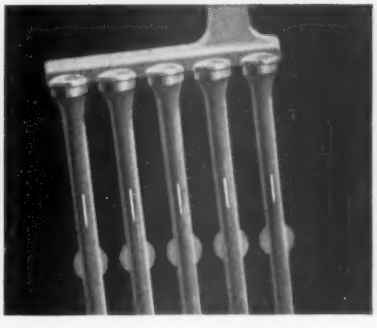
THE ELECTRIC STORAGE BATTERY COMPANY



Greater porosity. Highly permeable tubes ease current flow, reduce internal resistance, improve access of electrolyte for superior performance under heavy loads. Each plate delivers more power. Tubes hold . . .



More active material. Chief source of battery power. Larger inside diameter of tubes means every positive plate contains more active material per cubic inch of plate. You get all this . . .



Plus Silvium,* Exide's patented grid alloy—proved more corrosion resistant than any other grid alloy. Tests prove conclusively that Silvium prolongs battery life.

**U.S. Patent*

HOW ARE THEY DOING?

ON THE LACKAWANNA

Action—in the Midst of Planning

Perry Shoemaker—Conservative Progressive

He's adamantly opposed to a seeming tendency in the industry to look for a compromise on the matter of government subsidy.

His has been one of the strongest voices raised against inequitable taxation of the railroads — particularly in New Jersey.

He's a partner to the bold planning for consolidation of rail facilities and to advance studies of a dramatic merger proposal.

He took on vitriolic Robert Moses on the issue of socialization of commuter railroad service.

He warned railroad suppliers that rising costs might force the railroads to investigate the foreign market.

And just this month he bearded the Wall Street lions in their lairs for their pessimistic bearishness about railroads.

He's Perry M. Shoemaker, president and very much top man of the Lackawanna.

And despite his willingness to speak for the record on controversial issues, "One thing you can be sure of about Perry Shoemaker," says Yale Transportation Professor Kent Healy, "is that he knows what's going on on every inch of his railroad." The professor, who had the DL&W chief executive in his transport seminar several years ago, considers Mr. Shoemaker one of the sort of executives on whom railroading must bank its future. The qualities that Professor Healy favors — solid, but not stolid, thinking combined with imaginative, but not reckless, progressiveness — he sees in Mr. Shoemaker's way of running a railroad.

The Lackawanna is a railroad that won't be content with "good enough."

Deeply involved in coordination projects with the Erie, engrossed in no less than 29 separate studies on a proposed three-road (Erie-D&H) merger, it has now realined its operating divisions.

The new setup, designed for more efficient train operation and more personalized service to customers, establishes new territorial limits for the Morris & Essex division and combines the Buffalo and Scranton divisions into the Scranton-Buffalo division.

The M&E now covers all operations eastward from Dover, N.J., to the Hoboken-New York City terminal-harbor area. Territorial jurisdiction of the Buffalo terminal superintendent is concentrated on the terminal operations there alone. Road operations from Buffalo to Dover are the responsibility of the Buffalo-Scranton division superintendent.

Three transportation supervisors (a new job) will share round-the-clock jurisdiction over motive power utilization and control over through freights as well as power utilization on the M&E. On them will be focused responsibility for all train operations.

Meanwhile, the $2 million track-facilities coordination with the Erie should start next year in southwest New York. Savings of $900,000 a year for each road are anticipated.

Coordination of ferries and terminals at Hoboken "has not produced the savings which we expected," Lackawanna President P. M. Shoemaker, reports. He blames the "almost completely political" requirement that the Erie continue a separate ferry service.

Studies on the Erie-Lackawanna-Delaware & Hudson merger continue with indications the consolidation will be attempted.

"While the savings from coordination are very real," Mr. Shoemaker says, "they fall short of the further opportunities which appear possible from merger."

"Certainly near the end of the year we hope to have the information to permit a decision being made. . . . Once the facts clearly indicate desirability, then negotiations as to a basis for merger must be consummated. . . . Changes of such complexity cannot be accomplished overnight.

"But their necessity is clearly foreshadowed in the interests of a more economically operated railroad plant. If these particular merger studies fail to produce encouraging results, I am sure the self-interests of some of the companies, at least, will indicate the desirability of other studies."

The Lackawanna chieftain says that "1957 has been the roughest and at the same time the most challenging year in my business experience."

The year's business, already below hopes, was hurt by the New York harbor strike in February and by a cement strike in July that cost the road 3,200 carloads. Freight rates authorized in August mean about $300,000 a month more money—but anticipated wage boosts November 1 will eat up $245,000 of this.

Maintenance-of-way costs have been cut with modern techniques and machinery but Mr. Shoemaker says there has been no skimping in work needing to be done. Equipment maintenance was deferred at mid-year but was stepped up again when the bad order ratio hit 6%.

Lackawanna expects net income for 1957 of about $1.6 million, or a dollar a share. The figure takes on special significance considered in light of a Lackawanna crossing-protection program. In effect, it has saved the road $1.4 million a year—the payroll and related costs it would still be paying had the program not been started.

In the past 10 years, Mr. Shoemaker says, "Lackawanna has put $98,278,356 into capital expenditures, or $60 per share. We have today a railroad generally in fine physical condition; one whose proportion of new equipment is better than many; a road completely dieselized and one with tremendously high morale."

He doubts there will be a business resurgence in early 1958 but thinks the railroads can share in a comeback after mid-year. Right now, he feels, the country is at one of its periodic economic plateaus; the Lackawanna is getting ready now to step out in better times.

This 9-ft Alcoa® Aluminum boxcar door weighs 300 lbs.
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One man can open it easily.
It will last a long time and save you money.
It's another railway application of Alcoa Aluminum in use on leading railroads since 1944.

A regular 9-ft boxcar door weighs 700 lbs.
Its maintenance is high, requires frequent painting.
To open the heavy door, exasperated trainmen attack it with crowbars, sledges, fork trucks.
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MARKET OUTLOOK *at a glance*

Carloadings Ease 2% Below Preceding Week

Loadings of revenue freight in the week ended October 19 totaled 726,812 cars, the Association of American Railroads announced on October 24. This was a decrease of 14,708 cars, or 2.0%, compared with the previous week; a decrease of 101,929 cars, or 12.3%, compared with the corresponding week last year; and a decrease of 102,266 cars, or 12.3%, compared with the equivalent 1955 week.

Loadings of revenue freight for the week ended October 12 totaled 741,520 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, October 12

District	1957	1956	1955
Eastern	111,196	129,553	130,796
Allegheny	140,908	149,930	151,587
Pocahontas	61,738	66,186	63,881
Southern	123,564	133,371	133,486
Northwestern	118,659	142,966	142,845
Central Western	130,645	140,260	139,063
Southwestern	54,810	60,941	59,920
Total Western Districts	304,114	344,167	341,828
Total All Roads	741,520	823,207	821,578
Commodities:			
Grain and grain products	56,162	56,236	58,263
Livestock	12,641	15,168	14,643
Coal	135,170	144,579	136,773
Coke	9,923	12,218	12,844
Forest Products	37,817	46,884	44,876
Ore	76,077	86,765	80,935
Merchandise l.c.l.	55,338	62,755	65,180
Miscellaneous	358,392	398,602	408,064
October 12	741,520	823,207	821,578
October 5	747,647	815,193	801,559
September 28	739,266	831,648	815,535
September 21	724,934	822,436	813,720
September 14	741,147	820,849	817,234
Cumulative total, 41 weeks	28,625,378	29,818,530	29,550,509

IN CANADA.—Carloadings for the seven-day period ended October 7 totaled 86,767 cars, compared with 104,606 cars for the previous nine-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
October 7, 1957	86,767	32,049
October 7, 1956	94,627	28,737
Cumulative Totals:		
October 7, 1957	3,129,651	1,276,415
October 7, 1956	3,403,581	1,333,976

New Equipment

FREIGHT-TRAIN CARS

► *Norfolk & Western.*—Ordered 1,500 70-ton hopper cars from its Roanoke, Va., shops for delivery late in 1958.

► *September Orders Up, Deliveries Down.*—New freight cars ordered last month totaled 3,257, compared with 3,203 in August and 3,949 in September 1956, ARCI and AAR report; new cars delivered in September totaled 8,450, compared with 8,758 in August and 3,444 in September 1956; backlog of cars on order October 1 was 71,981, compared with 79,258 on September 1 and 122,421 on October 1, 1956.

Type	Ordered Sept. '57	Delivered Sept. '57	On Order Oct. 1, '57
Box — Plain	525	2,810	18,234
Box — Auto	0	0	500
Flat	150	85	2,830
Gondola	200	923	13,547
Hopper	1,802	3,010	23,677
Covered Hopper	325	794	5,027
Refrigerator	200	294	2,239
Tank	49	461	5,066
Caboose	6	10	125
Other	0	63	736
TOTAL	3,257	8,450	71,981
Car Builders	1,753	4,897	31,785
Company Shops	1,504	3,553	40,196

LOCOMOTIVES

► *1,019 New Units Installed in First Nine Months.*—Class I railroads installed 1,019 new locomotive units (1,015 diesel-electrics and four electrics), in this year's first nine months, compared with 1,125 units (all diesel-electrics), in comparable 1956 period, AAR reports; new locomotive units on order October 1 totaled 296 (266 diesel-electrics and 30 gas turbine-electrics), compared with 737 (710 diesel-electrics, 15 gas turbine-electrics and 12 electrics), on order October 1, 1956.

► *National Railways of Spain.*—Granted an $8,000,000 credit by Export-Import Bank to purchase 22 diesel-electric locomotives and traffic control equipment from United States manufacturers. This is the second credit granted to NRS, which is government-owned, a previous $8,200,000 having been granted in 1951.

New Facilities

► *Kansas City Terminal.*—Started $400,000 remodeling job at Union Station, involving ticket office and Fred Harvey dining facilities; project scheduled for completion early 1958.

► *Louisville & Nashville.*—Extension and rearrangement of tracks in Sibert yard, Mobile, Ala., at approximate cost of $127,000, will increase yard's capacity by about 210 cars; new track connecting yard with Alabama State Docks will be built; work is to begin soon.

► *Union Tank Car Company.*—Will build new maintenance and car repair shop in Baton Rouge, La., at cost exceeding $1,000,000; completion is scheduled for first half of next year.

a RAILWAY AGE time-saver page

America's know-how and skill made this possible...

and in America...it's Simtex know-how and skill that make this possible

In America the most famous hotels from coast to coast use Simtex napery because of its fine texture that stays luxurious . . . and because of a surface that keeps its gleaming freshness. Even after countless launderings Simtex tablecloths retain that fine and crisp hand. And thanks to the exclusive Basco protective process that is applied permanently to the fiber itself you are assured of unsurpassed durability and long range economy. All of these are the result of Stevens Simtex long experience and highly developed skills. Remember Simtex napery is made right in America.

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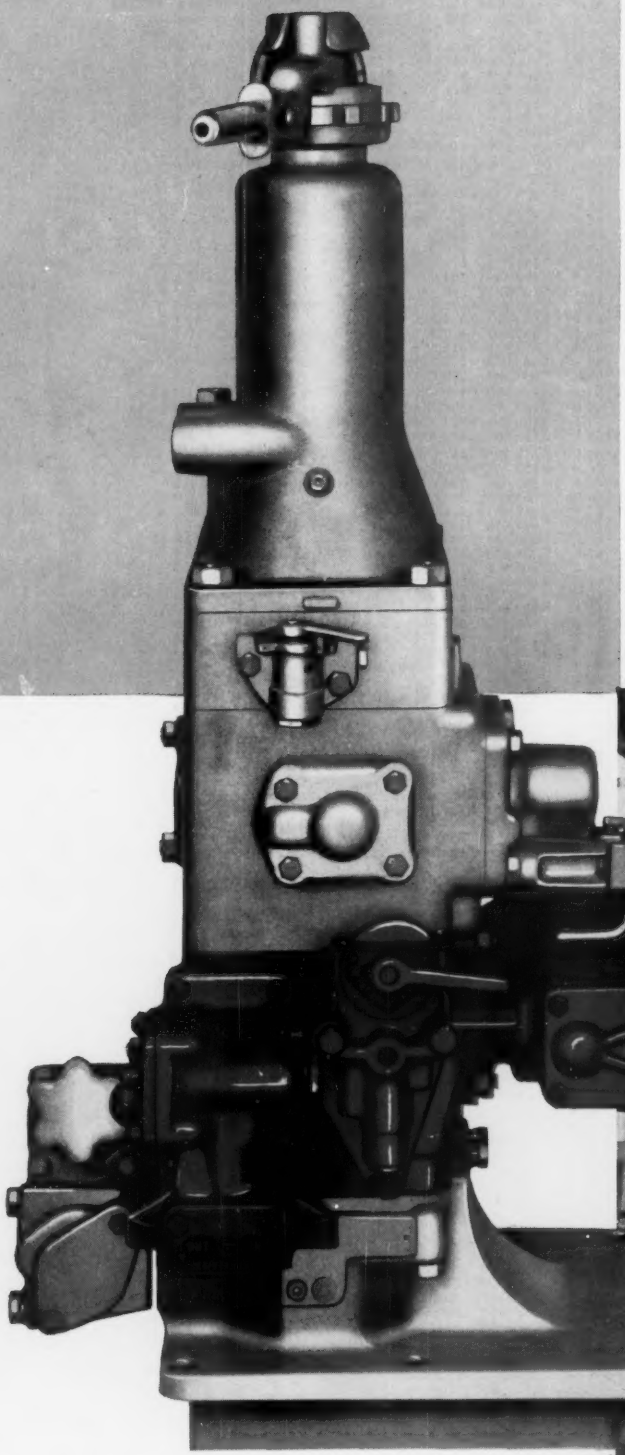
24 RL—the road locomotive brake that can be kept modern



Sectional construction, as followed in the 24 RL Brake Valves, provides for the addition of new or improved functions merely by the substitution of sections. The advantage, of course, is that the brake equipment can be kept modern with minimum investment as compared to entire brake valve replacement.

The most recent improvement that can be provided in this manner is the brake pipe pressure maintaining feature, which offers pronounced improvement in train brake operation plus outstanding maintenance economies that develop from uniform distribution of braking pressure throughout the train.

This feature can be incorporated in any D-24 Type Brake Valve now in service by replacing the existing Filling Piece Portion with the Conversion Filling Piece shown in color in the illustration. Write for our Circular Notice No. 1130 which gives complete details.

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Freight Operating Statistics of Large Railways—Selected Items

Region	Road	Year	Miles of road operated	Locomotive Miles: Train miles	Locomotive Miles: Principal and helper	Locomotive Miles: Light	Car Miles: Loaded (thousands)	Car Miles: Per cent loaded	Ton-miles (thousands): Gross excl. locos & tenders	Ton-miles (thousands): Net rev. and non-rev.	Road-locos on lines: Serviceable: Unstored	Road-locos on lines: Serviceable: Stored	Road-locos on lines: B_2O	Road-locos on lines: Per cent B.O.
New Eng. Region	Boston & Maine	1957	1,560	222,792	223,566	4,187	7,690	61.6	523,049	207,714	75	2	3	3.8
		1956	1,561	231,930	236,913	9,050	8,493	65.0	564,557	229,102	64	..	4	5.9
	N. Y., N. H. & Htfd	1957	1,739	246,694	246,694	16,520	9,688	63.3	633,202	248,706	80	..	16	16.7
		1956	1,746	250,077	250,077	19,590	10,520	64.8	683,402	274,567	77	..	12	13.5
Great Lakes Region	Delaware & Hudson	1957	771	149,934	153,390	4,700	7,798	65.2	548,582	273,090	37	..	3	7.5
		1956	792	162,328	165,458	3,719	8,116	65.8	560,638	275,912	34	2	7	16.3
	Del., Lack. & Western	1957	927	232,592	239,162	17,969	10,757	65.8	712,664	294,560	60	..	2	3.2
		1956	962	276,026	285,935	21,308	11,138	65.3	746,057	310,673	61	..	2	3.2
	Erie	1957	2,207	581,638	585,819	15,968	30,012	65.1	1,946,227	744,159	171	..	2	1.2
		1956	2,225	576,131	581,903	17,175	30,274	65.1	1,888,872	719,852	168	..	3	1.8
	Grand Trunk Western	1957	951	205,437	219,139	1,728	6,822	60.2	484,863	184,680	59	14	15	17.0
		1956	951	249,679	256,270	1,766	7,606	58.6	556,189	218,962	55	..	18	24.7
	Lehigh Valley	1957	1,135	218,797	221,547	3,665	9,411	63.4	657,366	294,204	31	..	3	8.8
		1956	1,135	198,635	201,400	6,039	9,252	60.6	674,687	302,416	32	..	3	8.6
	New York Central	1957	10,570	2,016,354	2,044,106	106,786	84,439	57.0	6,258,674	2,657,001	490	2	37	7.0
		1956	10,565	2,089,445	2,125,107	102,658	83,804	57.1	6,135,838	2,548,990	513	38	66	10.7
	New York, Chic. & St. L.	1957	2,155	683,552	695,329	5,294	28,479	62.0	2,065,433	893,586	169	13	18	9.0
		1956	2,154	665,704	684,304	7,113	27,629	61.8	1,985,429	841,603	173	9	22	10.8
	Pitts. & Lake Erie	1957	221	64,264	64,264	..	2,747	64.1	246,582	152,338	15	..	1	6.3
		1956	221	33,979	33,979	..	1,296	51.4	120,420	65,265	13	..	1	7.1
	Wabash	1957	2,379	539,535	540,579	6,354	22,938	61.2	1,606,071	616,480	112	..	..	..
		1956	2,381	521,475	522,652	6,072	23,293	62.9	1,606,548	628,469	111	..	1	.9
Central Eastern Region	Baltimore & Ohio	1957	5,896	1,458,204	1,627,249	132,955	57,615	60.5	4,799,208	2,320,253	472	20	57	10.4
		1956	5,910	1,503,659	1,658,795	145,543	56,625	60.9	4,639,746	2,173,135	432	21	89	16.4
	Bessemer & Lake Erie	1957	208	64,284	68,703	320	3,236	59.6	395,730	258,549	16	..	..	..
		1956	208	25,628	25,783	20	540	54.9	60,666	35,238	16	..	..	..
	Central RR Co. of New Jersey	1957	612	108,697	109,931	5,665	4,006	62.8	303,618	153,719	63	..	3	..
		1956	612	131,126	132,108	5,316	4,626	63.5	358,556	187,462	67	..	..	..
	Chicago & Eastern Ill.	1957	862	116,812	116,812	3,227	4,959	65.2	358,392	172,262	26	..	3	10.3
		1956	868	113,344	113,344	2,632	5,036	64.8	364,342	175,074	26	..	3	10.3
	Elgin, Joliet & Eastern	1957	236	81,647	82,126	..	1,935	63.8	194,134	104,095	38	2	3	7.0
		1956	236	57,108	57,528	..	1,617	61.1	127,588	65,594	24	14	2	5.0
	Pennsylvania System	1957	9,914	2,900,410	3,091,760	249,983	121,662	63.2	9,285,042	4,495,565	846	42	208	19.0
		1956	9,892	2,655,006	2,825,931	207,565	108,738	61.1	7,947,159	3,524,212	832	..	359	30.1
	Reading	1957	1,303	331,684	333,538	10,870	11,057	58.4	935,227	477,267	163	20	11	5.7
		1956	1,303	293,744	297,159	8,200	11,175	61.5	904,920	466,356	162	2	21	11.4
	Western Maryland	1957	846	147,830	151,997	7,417	5,614	63.7	482,014	275,076	52	..	..	..
		1956	846	133,191	135,980	5,526	4,677	59.8	391,553	208,866	42	..	1	2.3
Pocahontas Region	Chesapeake & Ohio	1957	5,067	1,449,098	1,454,177	28,126	62,801	54.6	5,746,075	3,172,902	606	4	78	11.3
		1956	5,067	1,441,365	1,463,185	43,477	59,197	55.6	5,261,455	2,894,790	517	18	83	13.4
	Norfolk & Western	1957	2,110	702,845	748,529	50,255	34,092	54.1	3,370,863	1,821,244	232	18	13	4.9
		1956	2,110	686,802	736,189	64,707	30,536	55.9	2,928,087	1,572,822	222	4	21	8.5
Southern Region	Atlantic Coast Line	1957	5,283	698,041	698,044	8,311	20,723	57.9	1,570,728	693,035	137	..	2	1.4
		1956	5,283	812,610	812,613	9,576	22,516	58.4	1,692,954	750,766	186	..	7	3.6
	Central of Georgia	1957	1,730	177,305	177,305	1,728	6,947	65.1	505,362	244,530	33	..	2	5.7
		1956	1,731	190,874	190,874	1,935	7,209	66.8	508,626	244,697	33	..	1	2.9
	Gulf, Mobile & Ohio	1957	2,717	266,789	266,789	474	14,106	67.6	987,981	474,778	80	..	11	12.1
		1956	2,717	270,103	270,103	1,081	13,945	67.1	947,048	441,625	84	..	7	7.7
	Illinois Central	1957	6,502	1,088,523	1,088,523	30,295	45,084	60.9	3,345,342	1,539,142	249	61	67	17.8
		1956	6,503	1,126,045	1,126,141	31,814	45,468	62.5	3,336,056	1,559,098	321	5	114	25.9
	Louisville & Nashville	1957	4,702	858,596	860,128	14,005	29,581	59.4	2,304,614	1,158,364	134	..	9	6.3
		1956	4,714	807,900	809,257	12,516	28,198	62.1	2,096,527	1,049,202	164	29	12	5.9
	Nash., Chatt. & St. Louis	1957	1,043	146,886	149,416	2,472	4,393	67.0	294,235	135,265	43	..	3	6.5
		1956	1,043	156,013	159,067	2,779	4,837	68.1	321,856	149,581	49	..	4	7.5
	Seaboard Air Line	1957	4,049	576,522	576,522	942	20,054	58.8	1,519,572	672,630	155	..	4	2.5
		1956	4,051	580,274	580,274	798	20,955	61.7	1,521,183	689,201	136	..	11	7.5
	Southern	1957	6,251	842,101	842,171	10,082	36,301	63.7	2,489,004	1,130,149	190	..	13	6.4
		1956	6,259	853,151	853,211	11,812	38,085	65.9	2,528,410	1,149,468	192	18	8	3.7
Northwestern Region	Chicago & North Western (*)	1957	9,252	912,428	912,428	9,962	30,744	59.4	2,385,717	968,436	188	..	14	6.9
		1956	9,334	810,641	811,435	9,089	32,867	62.9	2,398,790	994,492	182	1	7	3.7
	Chicago Great Western	1957	1,437	133,936	133,936	166	7,284	65.1	522,758	243,544	30	..	2	6.3
		1956	1,437	133,636	133,636	187	7,449	66.6	522,587	243,281	32	..	..	..
	Chic., Milw., St. P. & Pac.	1957	10,607	934,654	947,622	17,570	39,648	60.3	2,864,535	1,233,397	281	1	17	5.7
		1956	10,633	988,248	1,004,533	18,177	41,973	62.4	2,968,835	1,312,140	289	2	8	2.7
	Duluth, Missabe & Iron Range	1957	566	171,501	171,580	622	8,458	51.1	902,025	553,145	70	3	11	13.1
		1956	569	30,333	30,350	323	635	51.3	54,351	27,196	72	4	6	7.3
	Great Northern	1957	8,289	1,122,033	1,125,588	24,197	45,961	63.7	3,579,593	1,809,607	236	74	12	3.7
		1956	8,274	1,123,661	1,131,646	35,793	42,302	67.1	3,025,710	1,424,769	263	66	19	5.5
	Minneap., St. P. & S. Ste. M.	1957	4,169	440,628	442,194	1,893	14,076	65.7	991,183	465,216	79	8	7	7.4
		1956	4,171	414,267	417,401	3,134	13,751	62.3	962,862	428,878	84	10	3	3.1
	Northern Pacific	1957	6,534	799,124	807,570	15,555	32,897	64.6	2,308,263	1,031,426	248	38	26	8.3
		1956	6,569	897,865	915,599	21,035	35,936	60.2	2,605,780	1,111,809	262	58	31	8.8
	Spokane, Portland & Seattle	1957	944	137,494	137,494	1,273	5,611	72.9	359,135	176,895	52	..	2	3.7
		1956	946	151,951	151,978	1,464	6,736	74.9	456,619	227,880	54	..	2	3.6
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1957	13,172	2,536,349	2,692,453	59,293	115,167	62.4	8,161,556	2,990,161	577	16	95	13.8
		1956	13,124	2,440,592	2,518,548	51,136	109,315	62.7	7,548,085	2,731,748	554	47	62	9.4
	Chic., Burl. & Quincy	1957	8,728	1,080,478	1,079,077	21,771	45,529	62.1	3,242,921	1,408,602	162	28	31	14.0
		1956	8,771	1,081,875	1,079,602	22,588	46,396	62.9	3,245,494	1,390,914	206	46	29	10.3
	Chic., Rock I. & Pac.	1957	7,576	990,989	991,257	3,476	36,779	59.8	2,804,309	1,170,151	177	..	9	4.8
		1956	7,580	983,992	979,495	2,261	36,931	61.6	2,734,294	1,161,780	168	..	7	4.0
	Denver & R. G. Wn.	1957	2,155	293,060	314,001	28,465	14,526	70.2	997,716	463,596	91	3	3	3.1
		1956	2,155	274,468	296,152	30,009	13,093	67.4	898,640	385,429	81	10	11	10.8
	Southern Pacific	1957	8,036	2,293,112	2,384,197	150,715	102,109	60.6	7,293,161	2,769,835	695	103	37	4.4
		1956	8,044	2,305,959	2,401,156	163,027	102,999	60.8	7,336,962	2,772,311	692	69	62	7.5
	Union Pacific	1957	9,786	2,255,877	2,311,460	91,537	104,799	62.4	7,266,356	2,885,101	403	65	63	11.9
		1956	9,799	2,346,219	2,407,560	102,267	103,400	59.9	7,218,960	2,695,409	422	49	103	17.9
	Western Pacific	1957	1,190	243,614	264,290	12,136	10,611	62.2	728,502	296,651	45	..	1	2.2
		1956	1,190	220,836	234,520	11,385	10,049	67.5	644,390	268,624	47	..	1	2.1
Southwestern Region	Kansas City Southern	1957	886	132,048	132,048	238	7,396	64.3	545,344	242,646	26	..	1	3.7
		1956	886	133,759	133,782	354	7,848	68.0	563,027	259,400	26	..	1	3.7
	Louisiana & Arkansas	1957	746	80,141	80,141	30	3,768	62.5	296,448	136,877	17	..	..	..
		1956	746	91,725	91,725	109	4,117	63.7	322,403	151,528	15	..	..	..
	Mo.-Kans.-Texas Lines	1957	3,172	263,878	263,878	2,700	12,129	63.4	842,551	375,953	79	..	..	..
		1956	3,230	321,093	321,093	3,596	13,277	64.7	883,394	383,510	87	..	..	..
	Missouri Pacific	1957	9,660	1,129,412	1,129,412	8,819	51,956	63.7	3,689,585	1,672,051	381	..	21	5.2
		1956	9,701	1,153,049	1,153,049	10,521	51,368	65.0	3,597,344	1,639,558	347	..	41	10.6
	Texas & Pacific	1957	1,822	274,733	274,733	5,477	13,091	61.6	961,358	364,057	44	..	2	4.3
		1956	1,822	274,003	274,003	3,820	13,514	62.5	976,673	372,158	59	..	2	3.3
	St. Louis-San Francisco	1957	4,573	602,997	602,997	5,796	23,365	65.8	1,602,939	732,916	102	..	7	6.4
		1956	4,573	631,247	631,247	6,001	23,783	66.8	1,600,896	728,798	102	..	4	3.8
	St. Louis Southw. Lines	1957	1,554	319,380	319,465	1,526	13,940	70.5	770,325	344,346	55	..	1	1.8
		1956	1,554	321,989	322,027	1,538	13,961	72.0	869,117	388,507	54	..	1	1.8
	Texas & New Orleans	1957	4,272	633,430	633,430	704	26,362	64.1	1,838,952	810,346	135	..	2	1.5
		1956	4,287	714,682	714,682	290	27,548	61.0	1,973,625	841,256	141	..	1	.7

For the Month of July 1957 Compared with July 1956

Region	Road	Year	Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m. per train-hr. excl. locos. and tenders	G.t.m. per train-mi. excl. locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine	1957	1,963	7,166	9,129	1.9	36,040	2,356	935	27.0	695	41.7	4,295	15.4	98.1
		1956	1,886	8,335	10,221	2.4	37,287	2,440	990	27.0	733	41.8	4,734	15.3	128.1
	N. Y., N. H. & Htfd	1957	2,855	12,791	15,646	2.6	40,023	2,567	1,008	25.7	474	29.2	4,613	15.6	109.7
		1956	2,416	13,637	16,053	3.0	41,129	2,733	1,098	26.1	517	30.6	5,073	15.1	121.0
Great Lakes Region	Delaware & Hudson	1957	2,890	5,470	8,360	6.7	63,508	3,678	1,831	35.0	1,095	48.0	11,426	17.4	142.0
		1956	2,986	6,358	9,344	7.0	59,052	3,469	1,707	34.0	1,057	47.2	11,238	17.1	137.2
	Del., Lack. & Western	1957	5,735	9,503	15,238	4.8	55,396	3,100	1,281	27.4	584	32.4	10,250	18.1	142.4
		1956	4,547	9,394	13,941	3.6	47,204	2,744	1,143	27.9	689	37.8	10,418	17.5	175.9
	Erie	1957	9,096	18,251	27,347	3.2	66,270	3,378	1,291	24.8	859	53.3	10,877	19.8	126.4
		1956	7,176	16,602	23,778	3.1	64,006	3,315	1,263	23.8	930	60.1	10,436	19.5	125.4
	Grand Trunk Western	1957	5,416	7,940	13,356	6.6	47,652	2,377	905	27.1	462	28.3	6,264	20.2	91.4
		1956	4,596	8,938	13,534	9.0	48,588	2,249	885	28.8	544	32.3	7,427	21.8	123.5
	Lehigh Valley	1957	4,118	9,417	13,535	6.0	66,014	3,055	1,367	31.3	699	35.3	8,362	22.0	231.2
		1956	6,521	6,990	13,511	5.8	71,722	3,420	1,533	32.7	700	35.3	8,595	21.1	207[9]
	New York Central	1957	56,858	73,738	130,596	3.6	50,159	3,151	1,338	31.5	625	34.8	8,109	16.2	158.9
		1956	50,564	80,254	130,818	3.4	48,774	2,991	1,242	30.4	600	34.6	7,783	16.6	128[5]
	New York, Chic. & St. L.	1957	9,671	16,838	26,509	7.5	54,547	3,066	1,326	31.4	1,103	56.7	13,376	18.1	122.9
		1956	8,479	13,571	22,050	6.0	53,504	3,047	1,291	30.5	1,132	60.2	12,604	17.9	121.0
	Pitts. & Lake Erie	1957	4,048	8,133	12,181	8.9	58,047	3,851	2,379	55.5	388	10.9	22,236	15.1	152.2
		1956	2,554	4,740	7,294	9.8	57,017	5,556	1,927	50.4	216	8.4	9,526	16.1	80.0
	Wabash	1957	9,535	10,057	19,592	4.6	64,657	2,987	1,147	26.9	1,011	61.5	8,359	21.7	166.8
		1956	9,362	10,326	19,688	5.0	66,637	3,096	1,211	27.0	1,047	61.7	8,515	21.6	160.7
Central Eastern Region	Baltimore & Ohio	1957	51,947	44,034	95,981	6.9	50,291	3,350	1,620	40.3	784	32.2	12,695	15.3	105.8
		1956	47,705	48,879	96,584	5.8	48,474	3,151	1,476	38.4	706	30.2	11,861	15.7	113.0
	Bessemer & Lake Erie	1957	5,119	1,155	6,274	11.0	111,505	6,327	4,133	79.9	1,304	27.4	40,098	18.1	156.8
		1956	6,189	995	7,184	5.7	42,424	2,486	1,444	65.3	167	4.7	5,465	17.9	56.0
	Central RR Co. of New Jersey	1957	2,462	9,168	11,630	8.6	41,689	2,894	1,465	38.4	408	16.9	8,102	14.9	78.5
		1956	2,547	10,577	13,124	7.8	39,046	2,850	1,490	40.5	467	18.2	9,881	14.3	90.5
	Chicago & Eastern Ill.	1957	2,713	3,581	6,294	9.2	52,962	3,083	1,482	34.7	907	40.1	6,446	17.3	134.8
		1956	2,682	3,624	6,306	8.1	51,702	3,234	1,554	34.8	882	39.1	6,506	16.1	133.6
	Elgin, Joliet & Eastern	1957	7,036	9,474	16,510	6.5	19,826	2,508	1,345	53.8	204	5.9	14,228	8.3	79.4
		1956	6,594	8,076	14,670	4.5	19,111	2,343	1,205	40.6	135	5.5	8,966	8.6	61.4
	Pennsylvania System	1957	97,221	95,723	192,944	9.5	53,224	3,300	1,598	37.0	753	32.2	14,628	16.6	108.1
		1956	94,207	97,647	191,854	7.5	52,012	3,067	1,360	32.4	590	29.8	11,493	17.4	89.5
	Reading	1957	13,603	20,072	33,675	3.1	48,312	2,820	1,439	43.2	459	18.2	11,816	17.1	67.4
		1956	12,754	18,712	31,466	4.1	48,201	3,081	1,588	41.7	485	18.9	11,545	15.6	64.0
	Western Maryland	1957	5,067	2,845	7,912	2.7	50,225	3,352	1,913	49.0	1,062	34.0	10,489	15.4	108.4
		1956	5,474	5,019	10,493	3.9	44,882	3,015	1,609	44.7	711	26.6	7,964	15.3	117.5
Pocahontas Region	Chesapeake & Ohio	1957	59,641	36,566	96,207	.7	75,567	3,993	2,205	50.5	1,078	39.1	20,200	19.1	76.0
		1956	52,937	31,480	84,417	1.2	70,161	3,680	2,025	48.9	1,094	40.2	18,429	19.2	86.0
	Norfolk & Western	1957	37,333	10,838	48,171	1.2	85,289	4,931	2,664	53.4	1,233	42.6	27,843	17.8	106.6
		1956	38,140	9,549	47,689	1.2	76,036	4,366	2,345	51.5	1,129	39.2	24,046	17.8	113.3
Southern Region	Atlantic Coast Line	1957	20,766	16,701	37,467	4.5	43,772	2,256	995	33.4	602	31.1	4,232	19.5	182.5
		1956	18,091	16,563	34,654	4.9	41,457	2,091	927	33.3	716	36.7	4,584	19.9	146.8
	Central of Georgia	1957	2,771	5,474	8,245	4.2	50,592	2,853	1,380	35.2	918	40.1	4,560	17.8	176.0
		1956	2,413	6,521	8,934	3.3	47,522	2,670	1,284	33.9	879	38.8	4,560	17.8	195.2
	Gulf, Mobile & Ohio	1957	5,940	9,744	15,684	7.6	70,940	3,706	1,781	33.7	979	43.0	5,637	19.2	103.0
		1956	4,827	9,729	14,556	6.4	67,033	3,509	1,636	31.7	958	45.0	5,243	19.1	104.7
	Illinois Central	1957	26,824	26,180	53,004	2.6	54,085	3,100	1,426	34.1	954	45.9	7,636	17.6	103.4
		1956	22,995	26,693	49,688	2.2	51,668	2,999	1,402	34.3	992	46.3	7,734	17.4	90.5
	Louisville & Nashville	1957	28,269	13,891	42,160	4.7	48,376	2,690	1,352	39.2	894	38.4	7,947	18.0	212.7
		1956	28,019	12,116	40,135	5.1	46,364	2,602	1,302	37.2	865	37.4	7,180	17.9	132.3
	Nash., Chatt. & St. Louis	1957	2,492	4,220	6,712	7.6	39,195	2,006	922	30.8	651	31.5	4,183	19.6	117.8
		1956	3,517	3,488	7,005	5.4	40,985	2,065	960	30.9	675	32.1	4,626	19.9	109.6
	Seaboard Air Line	1957	13,560	12,102	25,662	2.9	50,352	2,688	1,190	33.5	859	43.5	5,359	19.1	135.7
		1956	11,729	14,152	25,881	2.9	48,233	2,674	1,211	32.9	893	44.0	5,488	18.4	151.3
	Southern	1957	17,668	23,694	41,362	4.9	50,116	2,968	1,348	31.1	878	44.3	5,832	17.0	151.4
		1956	15,818	23,242	39,060	3.8	50,988	2,974	1,352	30.2	956	48.1	5,924	17.2	149.1
Northwestern Region	Chicago & North Western (*)	1957	21,699	33,547	55,246	5.2	47,118	2,636	1,070	31.5	600	32.1	3,377	18.0	163.8
		1956	18,742	37,336	56,078	4.1	48,608	3,002	1,245	30.3	572	30.1	3,437	16.4	153.6
	Chicago Great Western	1957	1,965	4,799	6,764	2.9	70,472	3,911	1,822	33.4	1,268	58.3	5,467	18.1	141.2
		1956	1,587	4,317	5,904	3.0	74,390	3,914	1,822	32.7	1,355	62.3	5,461	19.0	140.8
	Chic., Milw., St. P. & Pac.	1957	32,492	33,986	66,478	5.7	57,411	3,079	1,326	31.1	625	33.4	3,751	18.7	114.2
		1956	30,467	30,796	61,263	7.5	57,305	3,017	1,333	31.3	682	35.0	3,981	19.1	120.9
	Duluth, Missabe & Iron Range	1957	13,696	848	14,544	2.9	96,836	5,519	3,384	65.4	1,244	37.2	31,525	18.4	77.0
		1956	14,165	684	14,849	2.1	29,158	1,905	953	42.8	60	2.7	1,542	16.3	15.1
	Great Northern	1957	23,542	21,547	45,089	3.0	57,795	3,249	1,643	39.4	1,327	52.9	7,042	18.1	126.5
		1956	22,692	24,532	47,224	3.1	53,682	2,725	1,283	33.7	964	42.6	5,555	19.9	116.5
	Minneap., St. P. & S. Ste. M.	1957	6,400	8,303	14,703	2.7	47,800	2,264	1,063	33.1	1,006	46.3	3,600	21.2	170.7
		1956	7,057	9,486	16,543	5.5	48,453	2,341	1,043	31.2	850	43.7	3,317	20.8	153.3
	Northern Pacific	1957	18,647	17,001	35,648	4.3	56,787	2,900	1,296	31.4	934	46.1	5,092	19.7	93.1
		1956	18,945	22,659	41,604	5.8	56,822	2,913	1,243	30.9	922	49.5	5,460	19.6	98.8
	Spokane, Portland & Seattle	1957	1,574	4,430	6,004	2.4	38,497	2,635	1,298	31.5	1,018	44.3	6,045	14.7	94.7
		1956	1,493	4,781	6,274	3.0	43,343	3,028	1,511	33.8	1,241	49.0	7,771	14.4	89.4
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1957	55,610	34,244	89,854	6.7	72,449	3,221	1,180	26.0	1,030	63.6	7,323	22.5	137.9
		1956	58,482	34,600	93,082	3.3	70,456	3,101	1,122	25.0	924	59.0	6,714	22.8	133.6
	Chic., Burl. & Quincy	1957	19,976	27,082	47,058	3.5	60,471	3,010	1,307	30.9	1,014	52.8	5,206	20.1	174.6
		1956	19,798	24,900	44,698	4.0	60,114	3,007	1,209	30.0	1,029	54.6	5,116	20.0	134.0
	Chic., Rock I. & Pac.	1957	11,551	24,862	36,413	5.7	54,495	2,838	1,184	31.8	1,042	54.7	4,982	19.3	182.3
		1956	12,450	20,934	33,384	5.6	56,454	2,785	1,183	31.5	1,078	55.6	4,944	20.3	189.4
	Denver & R. G. Wn.	1957	6,918	7,610	14,528	2.6	64,121	3,414	1,586	31.9	1,032	46.0	6,940	18.8	126.2
		1956	7,713	6,997	14,710	4.2	63,661	3,284	1,408	29.4	867	43.7	5,769	19.4	112.4
	Southern Pacific	1957	31,173	45,494	76,667	1.8	63,709	3,225	1,225	27.1	1,201	73.0	11,119	20.0	108.6
		1956	30,543	50,326	80,869	2.1	64,301	3,225	1,219	26.9	1,097	67.1	11,118	20.2	110 2
	Union Pacific	1957	31,284	36,511	67,795	1.7	83,811	3,245	1,289	27.5	1,442	84.0	9,510	26.0	152.9
		1956	32,970	40,391	73,361	2.1	78,345	3,100	1,158	26.1	1,264	81.0	8,873	25.5	145.5
	Western Pacific	1957	2,550	3,316	5,866	2.0	75,477	3,009	1,225	28.0	1,612	92.8	8,042	25.2	202.7
		1956	2,365	3,817	6,182	1.9	72,936	2,931	1,222	26.7	1,267	70.2	7,282	25.0	171.8
Southwestern Region	Kansas City Southern	1957	2,391	5,352	7,743	3.5	79,822	4,150	1,847	32.8	1,020	48.4	8,834	19.3	182.4
		1956	1,395	6,183	7,578	2.3	82,908	4,214	1,942	33.1	1,117	49.7	9,444	19.7	198.5
	Louisiana & Arkansas	1957	1,741	3,550	5,291	4.7	71,040	3,702	1,709	36.3	850	37.5	5,919	19.2	188.3
		1956	1,559	3,475	5,034	6.3	67,717	3,518	1,653	36.8	964	41.1	6,552	19.3	212.8
	Mo.-Kans.-Texas Lines	1957	4,555	7,305	11,860	10.0	52,841	3,223	1,438	31.0	1,037	52.8	3,823	16.5	120.2
		1956	3,670	6,335	10,005	7.6	57,034	2,738	1,197	28.9	1,112	59.5	3,830	20.7	127.3
	Missouri Pacific	1957	21,199	26,810	48,009	4.9	63,382	3,278	1,485	32.2	1,121	54.6	5,584	19.4	98.2
		1956	22,237	31,386	53,623	4.5	60,777	3,136	1,429	31.9	958	46.2	5,452	19.5	104.7
	Texas & Pacific	1957	3,270	6,309	9,579	2.2	74,849	3,518	1,332	27.8	1,182	68.9	6,446	21.4	214.1
		1956	2,590	6,425	9,015	2.5	77,618	3,575	1,362	27.5	1,297	75.3	6,589	21.8	156.0
	St. Louis-San Francisco	1957	9,962	11,847	21,809	1.7	51,862	2,663	1,217	31.4	1,018	49.3	5,170	19.5	200.2
		1956	12,078	12,586	24,664	3.1	51,477	2,544	1,158	30.6	961	46.9	5,141	20.3	207.0
	St. Louis Southw. Lines	1957	2,098	4,130	6,228	1.9	51,382	2,416	1,080	24.7	1,740	100.0	7,148	21.3	193.9
		1956	1,736	4,341	6,077	1.0	54,565	2,704	1,209	27.8	1,809	90.3	8,065	20.2	199 4
	Texas & New Orleans	1957	6,348	15,636	21,984	1.4	59,601	2,920	1,287	30.7	1,212	61.6	6,119	20.5	158.4
		1956	5,127	18,084	23,211	1.7	56,619	2,779	1,184	30.5	1,254	67.3	6,330	20.5	177.3

*Includes operations of Chicago, St. Paul, Minneapolis & Omaha Ry. Co., under lease effective Jan. 1, 1957.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

THE CONTINUING **OUTRAGE**

Limited Earnings Cramp RR Growth

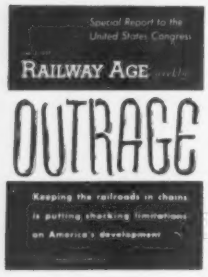
The present railroad financial plight is no simple matter of loss of corporate profits. It's an impasse that points to far graver consequences. As AAR chief William T. Faricy pointed out as recently as October 10, the railroads need a large inflow of new capital—not merely for improvements and additions, but simply to stay even.

The mathematics involved in the average box car replacement are a good example. Back in the twenties a new car cost $2,500. Replace it today and, as most railroaders know, you'll face a minimum $8,500 bill. Meanwhile, a railroad is able to accumulate only $2,500 (the original cost) from charges to depreciation; $6,000 of new investment money must be raised—*not to enlarge, but merely to replace.*

To raise the $6,000, the road must borrow it, or take it out of current earnings. And with the income tax at 52 per cent, $12,500 must be earned in order to produce that $6,000. Yet railroads today aren't being allowed to earn that kind of money. Restricted to earnings of less than 4%, they have neither cash nor credit to make adequate renewals. They need $360 million in new money every year just to keep car fleets intact. No wonder railroads feel hamstrung.

THE AVERAGE NEW BOXCAR now costs about $8,500; the car it replaces once cost $2,500. To generate $6,000—just enough to stay even—a railroad must earn $12,500, before taxes.

Letters from Readers


Special Report to the United States Congress
RAILWAY AGE
OUTRAGE
Keeping the railroads in chains is putting shocking limitations on America's development

MORE COMMENTS ABOUT 'SPECIAL REPORT'

"Considerable Influence"

CHICAGO

TO THE EDITOR:

This publication cannot help but have considerable influence on the Congress in their attitude toward the railroads if they read it at all.

The facts as you have shown them are certainly incontrovertible and, being presented in such a lucid manner, make it easy for anyone to get a pretty good overall view of the transportation industry.

V. E. McCOY
Chief Purchasing Officer
Chicago, Milwaukee, St. Paul & Pacific

"Forceful"

CLEVELAND

TO THE EDITOR:

Railway Age's "Outrage" issue was one of the most concentrated and forceful collections of articles on the inequities facing the railroads that I have seen in recent years. You have our thanks for this fine presentation, also our encouragement to publish more issues of this kind.

M. G. McINNES
Executive Vice-President
Erie

"Should Do Some Good"

SPRINGFIELD, ILL.

TO THE EDITOR:

This is the finest presentation on the subjects of taxation, regulation, and subsidation I have ever read and certainly should do some good through wide circulation. Your down-to-earth concise presentation of the subject is very effective.

J. E. DARE
President
Chicago & Illinois Midland

"A Neglected Facet"

ALBANY, N. Y.

TO THE EDITOR:

Some mention could have been made of the restrictive regulations with regard to equipment inspection under which we operate. Also the desire of certain regulatory bodies to encroach on our managerial functions in other areas, viz., track inspection, etc.

My comments so far are not meant to be criticisms, but rather suggestions for improvement, because I feel that, in general, editorially the issue was excellent.

J. P. HILTZ, JR.
Vice-President
Delaware & Hudson

"Write"

CLEVELAND, O.

TO THE EDITOR:

The October 7 Railway Age, carrying your "Outrage" story, is very informative of a very serious situation. I hope everyone interested will write and do something about attempting to help this dangerous condition and that the Congress of the United States will take particular heed of what has been so concisely printed.

R. G. ULLMAN
Vice-President — Sales
West Steel Casting Company

"Provided Impetus"

PITTSBURGH

TO THE EDITOR:

As a whole, our industry is very inarticulate, and once again Railway Age has provided the impetus and statesmanship which we sorely need.

There is an old saying that "the squeaky wheel gets the grease" and as I see it, you are providing the "squeak." I only hope that it results in getting the "grease."

W. C. KRESGE
General Superintendent
Pittsburgh & West Virginia

BOOKS . . .

HANDBOOK OF AMERICAN RAILROADS

by Robert G. Lewis

This new 2nd edition (1956) provides a complete, illustrated data guide to the nation's 113 Class I line-haul railroad carriers. Contains a map of each railroad, prominent train photo, herald, historical sketch, biography of chief officer, financial and operaitng statistics, and equipment data. The author is publisher of "Railway Age."

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by Henry Sampson

A worldwide survey of railway operation and equipment. Up-to-date details tabulated on 1,470 railroads in 106 different countries, including photos, maps, diagrams. 157 major rail systems are dealt with individually, with new or revised maps, and equipment, financial and traffic statistical data. 1956-57 edition.

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SUPER-RAILROADS FOR A DYNAMIC AMERICAN ECONOMY

by John Walker Barriger

This book, written by one of the nation's ablest and best informed students of railroad transportation, present a comprehensive working plan for modernization and improvement of service and lowering of costs. The author spells out the tremendous opportunities facing rail transport today and asserts that the brightest challenge and greatest growth are still ahead for the nation's railroads.

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'Best Commission Yet'

For the past couple of years, people who have spent a generation dealing with the Interstate Commerce Commission have been saying: "This is the best commission we've ever had."

They are right, too. And the principal reason is that many of the present members of the commission are men who realize that transportation has undergone a revolution, and that regulation has to adapt itself to new conditions.

None of the present commissioners is obsessed with the schoolmasterish belief, from which some of their predecessors suffered, that regulated carriers are full of original sin—for which the only remedy is unremitting chastisement.

The commissioners are not afraid to make known their views on transportation policy, either. As one current example, take the paper that Commissioner Arpaia presented to the recent Pan-American Railway Congress at Buenos Aires—and which won a substantial prize for its author. In that paper Commissioner Arpaia said:

"The present pace of social development and material progress was made possible by fast overland mass transport by rail. . . . People accept as a matter of course the necessities and comforts which would not be available, or would only be available at prohibitive prices, if it were not for the existence of such mass transportation. . . .

"Motor, air, and water carriers are limited in many respects and must necessarily be complementary to the rail framework. . . . To the extent that these complementary media of transportation are not fully coordinated and integrated as part of a unified service . . . the potential economy of a country is hampered and the maximum efficiency of transportation is lost. . . . The unnecessary effort and expense caused by duplication of ownership or management of the several forms of transportation should be avoided."

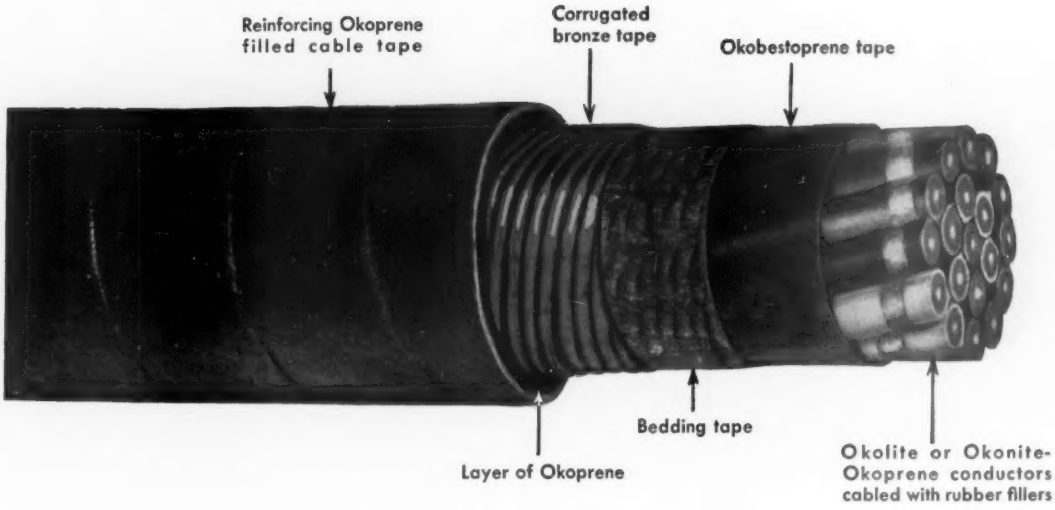
•

Commissioner Arpaia has, thus, put himself on record as favoring what is sometimes called "integrated" transportation—but which might perhaps better be called "diversified." What is meant is the provision of rail, highway, waterway and air transportation by a single company. Such a policy has been advocated for decades by this paper—but it continues to be highly controversial, and its advocacy by Commissioner Arpaia thus provides a measure of his independence and courage.

Other commissioners have been no less outspoken on other questions of public policy, which are not yet the law of the land. If the commissioners were to overemphasize their judicial functions—at the expense of their equally important responsibility as advisors to Congress — they would not be speaking out, as they are, on proposed changes in transportation policy.

This paper has often in the past disagreed with ICC decisions, and expects it will have occasion to do so in the future—but that reservation does not detract from recognition of the caliber of the commission's members. And they have need of all the intelligence, imagination, courage and freedom from prejudice that they can muster, too—because this nation's transportation policy is an ungodly mess.

TRANSPORT DEBATE SCARES THEM: Neither the Administration nor Congress shows willingness to deal firmly with the chaos which inconsistent government policies have brought about in transportation, and of which the railways and their patrons have been, so far, the principal victims. There are, of course, members of both the executive and legislative branches who would act constructively if they could—but, quite plainly, their efforts are being thwarted by the protagonists of pressure groups which thrive on confusion. The ICC is the only forum in official Washington where intelligent statesmanship in transportation has a strong voice today. The ICC thus has a grave responsibility—and an unequaled opportunity.



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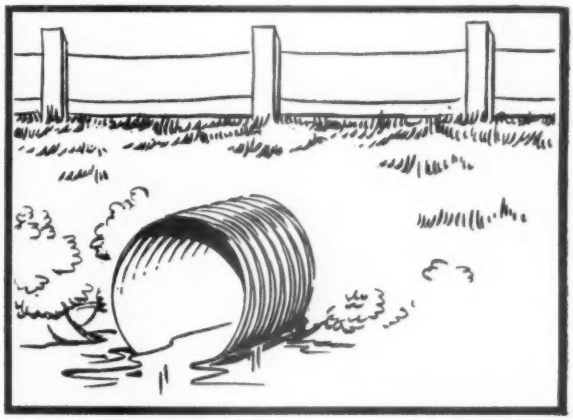

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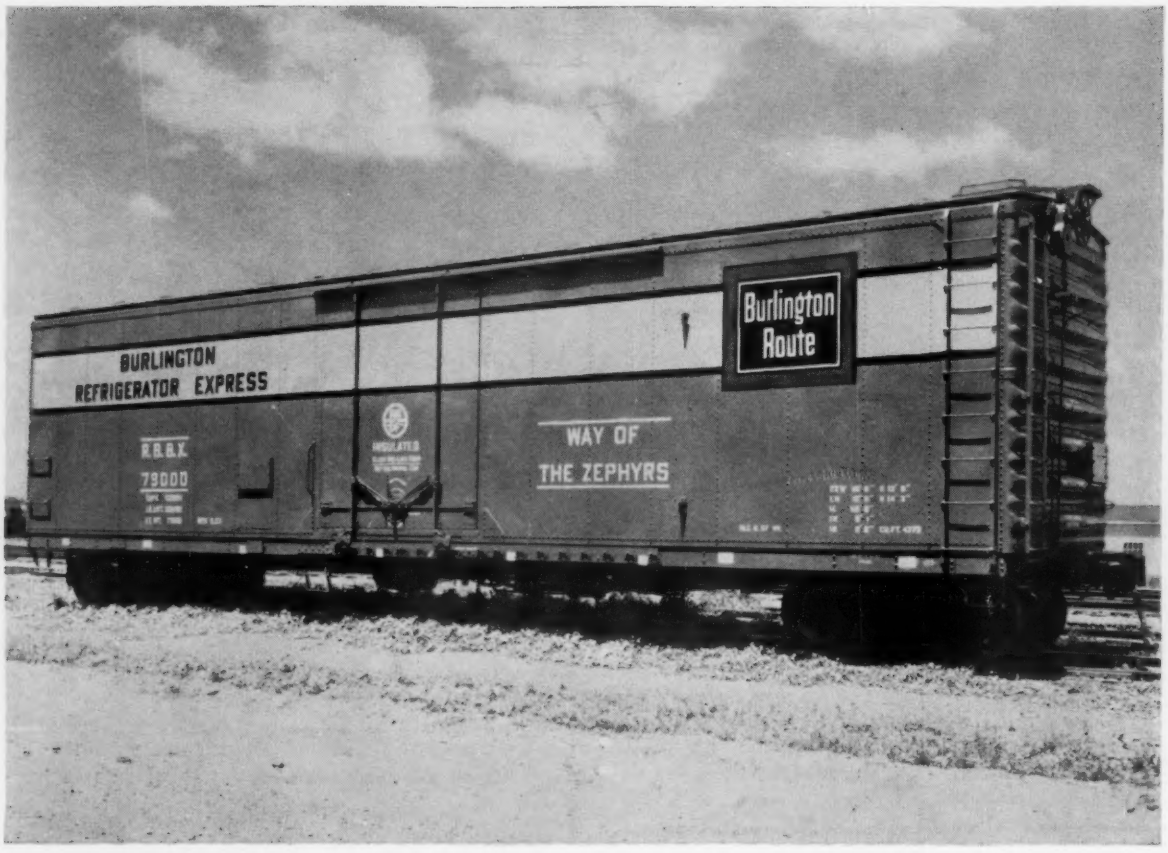

Burlington Refrigerator Express installs TIMKEN® bearings on 100 new cars to speed shipments, cut costs

THE picture above shows one of the 100 new insulated box cars the Burlington Refrigerator Express is putting into service. By mounting these cars on Timken® tapered roller bearings, Burlington Express, a subsidiary of the Burlington Railroad, eliminates the hot box problem, cuts terminal delays, and speeds shipments to customers. Timken bearings will run cool because they *roll* the load. There's no metal-to-metal sliding that you find with friction bearings. "Roller Freight" trains keep rolling without fear of hot boxes.

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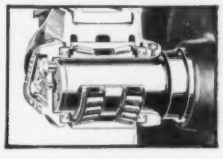
The Burlington and 60 other railroads and other freight car owners are helping speed that day. Already they have more than 24,000 Timken-bearing-equipped freight cars in service or on order, one-third of them in interchange. And more are on the way because the big switch to "Roller Freight" is on. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".



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